Soviet Casualties and Losses During Operation Barbarossa, and from 1942 to 1945

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1. Introduction.

Russia: “a riddle wrapped in a mystery inside an enigma”, Churchill, October 1939.*

Rather apt when attempting to unravel the truth in regards to Soviet casualties during WWII.
This subject proved to be one of the most painful and divisive post-war topics in the Soviet Union, and continues to be so (although to a lesser degree) in Russia and the Eastern European countries even today.

The main reasons:

1. The quantity and quality of the casualty records and combat reports in the Soviet (and now Russian Federation) archives. The impossibility of keeping accurate records of the chaos that was the East Front (especially during 1941).

2. Different methodologies to ascertain different types of losses - e.g., disagreements as to the definition of military casualties as opposed to civilian casualties.

3. Ideology. Essentially (as we shall see later), the USSR never wanted to reveal to the world, and especially not its own people in the post-war period, the true human cost of the “Great Patriotic War”.

* The full quote in context is “I cannot forecast to you the action of Russia. It is a riddle wrapped in a mystery inside an enigma; but perhaps there is a key. That key is Russian national interest.” Winston Churchill, London, BBC broadcast, 1st October 1939.

1. Important terms and definitions.

Military-operational irrecoverable losses.
Comprises the military servicemen who were lost to that country's armed forces for the duration of the war. They include: killed, died of wounds during casualty evacuation, died in hospital of wounds (in the short term), executed following a sentence by a military court, died of accidents or sickness, missing in action (MIA, including deserters), and prisoners of war (POWs).

All POWs are included regardless of their subsequent fate after the end of the war. Note, POWs resulting from a country's military collapse at the strategic level and subsequent surrender are not military-operational irrecoverable losses. This is the case even if a proportion of these personnel subsequently died as a direct result of imprisonment (post war) in the short term.

Demographic irrecoverable losses.
Comprises all the 'military-operational irrecoverable losses' above, minus those servicemen who returned to their home country from captivity after the war, or were missing in action and subsequently survived and returned to (or remained in) their home country.

Recoverable losses.
Comprises: wounded from all causes, and personnel made unfit for service due to sickness, disease, accidents and frostbite. Generally, these personnel survived the war, although a considerable number died in the medium term (possibly even during the war), and a large proportion were permanently disabled.

2. A brief history of the Soviet Great Patriotic War 'casualty story'.

During most (but not all) of the Cold War period nearly all the archives were closed and classified.
The Soviet establishment made public its version of 'The History of the Great Patriotic War', and it was largely a 'take it or leave it' situation for historians. One consequence was far more German centric views of events and records.

This only changed significantly after Gorbachev's *Perestroika* movement and *Glasnost* policies in the late 1980s, and the dissolution of the Soviet Union in late 1991.

- Classified report by Colonel Podolsky, *Chief of the Directorate for Accounting and Control of the Numerical Strength of the Armed Forces*, in **June 1945**. This report is summarised in the table below, and probably represents the first serious attempt at quantifying the Soviet military related losses during the war.

Podolsky June 1945 Report: Information on Red Army Personnel Combat Casualties during the Great Patriotic War	
Killed or died of wounds	
Killed in battle (according to troop reports).	5,141,000
Died of wounds in hospitals (according to reports).	1,190,000
Total	**6,331,000**
Wounded casualties	
Overall number of wounded, after subtracting those who died of wounds in hospitals.*	**13,960,000**
Proportion of the above (wounded) that remained disabled.	2,576,000
MIAs and POWs	
Overall number of captured recorded by repatriation organs.	2,015,000
MIA (according to troop reports).	1,196,000
Unrecorded losses that must be related to casualties in the initial period of the war.	133,000
Total	**3,344,000**
Total casualties	**23,635,000**
* According to troop reports, and includes those wounded more than once.	

- In **March 1946** Stalin publically declared that the USSR had lost a total of around 7,000,000 people during the war!

- In **1946**, the Soviet Emergency State Commission (*Chrezvychainaia Gosudartsvennaia Komissiia*, or ChGK) produced another classified report that stated the "Nazis and their allies had deliberately exterminated 6,716,660 Soviet civilians and another 3,912,883 POWs." Note, the number of POWs killed has already climbed well above Podolsky June 1945 total number.

- In the **late 1940s** Stalin cancelled the desperately needed (and planned for) 1949 census. Every country directly involved in the war conducted a census from 1945 to 1951, with the exception of the USSR; the country that probably needed it most.
  The USSR did not conduct a census on its population until January 1959: almost 6 years after Stalin's death (in March 1953), 14 years after WWII had ended and 20 years since the last census in 1939.

- In **February 1956**, Nikita Khrushchev delivered a famous speech to the 20th Congress of the Communist Party of the USSR. He denounced Stalin's regime, and stated the USSR had in fact lost over 20,000,000 people during the Great Patriotic War.

  Selected historical archives were partially opened up to scholars. Most of the limited Russian material used later by Western authors in the 1960s and 1970s originated from this period. This period (of even limited access) did not last long.

- In **October 1964** Khrushchev was replaced by Leonid Brezhnev, who was not happy about literature that apparently "twisted, distorted and misquoted" documents from the archives in an apparent effort to undermine the official version of events.
  By **1972** only the 'researchers' from the General Staff Academy and the Frunze Military Academy were allowed access.

- Mostly unhanged under Yuri Andropov (**1982 to 1984**) and Konstantin Chernenko (**1984-1985**).

- Mikhail Gorbachev in **1985.** Even with the ***perestroika*** movement and implementation of the ***glasnost*** policies**,** access to military archival records was still very limited. A full official position (study) was needed.

- In **April 1988** a commission led by Colonel-General M. A. Gareev, Deputy Chief of the General Staff, was established in the Ministry of Defence to establish WWII Soviet casualties.* Most of the 'work' done by this commission was based on classified work already completed by another General Staff group under Colonel-General S. M. Shtemenko from 1966 to 1968.

- General M. A. Gareev, was later appointed President of The Academy of Military Science of the Russian Federation. This academy is responsible for the current statistical analysis work representing the official Russian figures for Soviet casualties in the Great Patriotic War; namely, *Rossiia i SSSR v voinakh XX veka.* (Russia and the USSR in Wars of the 20th Century)**.**

- In **December 1988** the Minister of Defence, D. T. Yazov, presented the ‘findings’ to the Central Committee of the Communist Party of the Soviet Union (the CC CPSU). The memorandum presented precisely the same figures (in all respects and in all categories) to those shown in <u>Table 1</u> (the current official figures, which we will examine shortly).

- The Soviet *Politburo* (including Gorbachev) vacillated on its release, and in **February 1989** the still incomplete report was classified as secret. The CC CPSU resolution also ordered the USSR State Statistics Committee, the USSR Ministry of Defence, the USSR Academy of Sciences and the Moscow State University to form a research team to “clarify details of the casualties”.

- On **8th May 1990**, while celebrating the 45th anniversary of the Soviet victory, Gorbachev publically announced that “the war claimed 27,000,000 Soviet lives”. On **9th May 1990** the Minister of Defence stated that the Soviet armed forces suffered <u>11,444,100 military-operational irrecoverable losses</u> and around <u>8,700,000 demographic irrecoverable losses</u>.
Note, miraculously, exactly the same numbers as in the December 1988 incomplete memorandum (also the current official figure shown in <u>Table 1</u>, which we will examine shortly).

- In **1993** the complete work was assembled as part of a book for publication in Russia (the dissolution of the USSR having occurred in December 1991), edited under the auspices of Colonel-General G. F. Krivosheev and with six other authors.
Its title was *Grif sekretnosti sniat: Poteri vooruzhennykh sil SSSR v voinakh, boevykh deistviiakh i voennykh konfliktakh* (**The seal of secrecy has been removed: USSR armed forces casualties in wars, combat operations and military conflicts**).*
It remains the basis for the official Russian Federation position on Soviet WWII casualties to this day.

- In **2001** the much anticipated second edition to the work was published in Russian. This work was titled *Rossiia i SSSR v voinakh XX veka: Poteri vooruzhennykh sil*. (**Russia and the USSR in wars of the 20th century: Losses of the armed forces**).
The new revision expanded on several topics, such as more details on civilian casualties during WWII and losses from WWI. However the WWII armed forces data was identical to the 1993 original work (with the same figures as stated in May 1990).

- Currently, *Tsentral'nyy arkhiv Ministerstva oborony Rossiyskoy Federatsii*, or **TsAMO RF** (**Central Archive of the Ministry of Defence of the Russian Federation**. The TsAMO RF stores documents of different branches, offices, associations, formations, units, institutions and military academies of the Soviet Defence Ministry. Main locations are at Podolsk and Saratov.

* In 1997 ‘The seal of secrecy has been removed’ was translated into English and published in the West as Soviet Casualties and Combat Losses in the Twentieth Century.

3. The current Russian Federation's position on Soviet WWII casualties.

Table 1. Krivosheev Data on Irrecoverable Losses for the Red Army, Navy, and Border and Internal Service Troops, 1941 to 1945~

Loss Category	Total	Red Army and Navy^	Border Troops*	Int. Service Troops
Killed in action, died of wounds during evacuation (based on troop reports).	5,226,800	5,187,200	18,900	20,700
Died in hospital of wounds (based on TsVMU MO figures).	1,102,800	1,100,300		2,500
Totals	6,329,600	6,287,500	18,900	23,200
Died of disease, as a result of accident, sentenced to be executed.	555,500	541,900	7,100	6,500
Totals	6,885,100	6,829,400	26,000	29,700
Missing in action (MIAs) and POWs (based on troop reports and figures from repatriation organisations).	3,396,400	3,305,600	22,800	68,000
Unrecorded casualties from the first months of war (in 1941): killed, missing in action (MIA) at time when reports not received from fronts and armies (taken from individual archive documents including those of German military command).	1,162,600	1,150,000	12,600	
Totals	4,559,000	4,455,600	35,400	68,000
Total military-operational irrecoverable losses	11,444,100	11,285,000	61,400	97,700
Servicemen who were encircled or were missing in action (MIA) in occupied territories, and who were re-conscripted once the area was liberated.*^	939,700			
POW servicemen who returned from captivity at the end of the war (based on figures from repatriation organisations).	1,836,000			
Totals	2,775,700			
Krivosheev "actual number of irrecoverable losses (from listed strength)". Demographic irrecoverable losses Totals	8,668,400	8,509,300	61,400	97,700
Plus (mobilised) reservists captured (or killed) by the enemy after being conscripted but before being taken on unit strength.	500,000			
Actual number of military-operational irrecoverable losses.**		11,944,100		
Probable number of demographic irrecoverable losses.**		9,168,400		

~ Exactly the same figures were first presented in the 16th Dec. 1988 memorandum to the CC CPSU by the Minister of Defence, D. T. Yazov.

* Including state security service organs and troops.

^ Taken from Table 2 (next slide), which shows only Red Army and Navy losses in the Great Patriotic War.

*^ Krivosheev classifies these as MIAs that avoided capture (i.e. were never POWs (?)) here. Arguably, these were therefore not permanently 'lost' to the USSR's war effort from a military-operational perspective. However, Krivosheev later refers to them as part of the total of 4,059,000 Soviet POWs (as shown in table Sov. POWs (1)).

** Military-operational irrecoverable losses includes serviceman put out of action during the course of the war. Therefore, it should include the ca. 500,000 conscripts (in uniform and possibly armed) who were captured or killed before being taken on unit strength.

These were mostly part of the MP41 (pre-war) mobilisation plan to bring the rifle divisions in the Western Special Military Districts to full *Shtat* (TOE) strength when war broke out.
The evidence is that the large majority of these personnel also died or were killed, and so were very likely also demographic irrecoverable losses.

Krivosheev, remarkably, treats these c.a. 500,000 personnel as civilian demographic irrecoverable losses (but then just lists them separately and does not include them in the total).

Table 2

Krivosheev Data on Red Army and Navy Losses in the Great Patriotic War, 1941 - 1945, by Loss Category, Year and Quarter Year*

	KIA, died during casualty evacuation		Died in hospital of wounds		Died of disease, as a result of accidents, etc. (non-combat losses)		MIA, POWs, incl. unrecorded casualties from first months		Total, irrecoverable losses		Wounded, concussion and burns cases		Sick		Frostbite cases		Total, recoverable losses		Total Losses
Period	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.
1941																			
3rd Quarter	236,372	8.4%	40,680	1.4%	153,526	5.4%	1,699,099	60.3%	2,129,677	75.6%	665,961	23.6%	21,665	0.8%			687,626	24.4%	2,817,303
4th Quarter	229,009	13.8%	60,791	3.7%	81,813	4.9%	636,383	38.4%	1,007,996	60.9%	590,460	35.6%	44,504	2.7%	13,557	0.8%	648,521	39.1%	1,656,517
Total 1941	465,381	10.4%	101,471	2.3%	235,339	5.3%	2,335,482	52.2%	3,137,673	70.1%	1,256,421	28.1%	66,169	1.5%	13,557	0.3%	1,336,147	29.9%	4,473,820
1942																			
1st Quarter	413,681	22.3%	45,651	2.5%	34,328	1.9%	181,655	9.8%	675,315	36.4%	1,011,040	54.5%	117,007	6.3%	51,410	2.8%	1,179,457	63.6%	1,854,772
2nd Quarter	232,388	15.0%	55,761	3.6%	26,294	1.7%	528,455	34.1%	842,898	54.4%	552,437	35.7%	154,210	10.0%		0.0%	706,647	45.6%	1,549,545
3rd Quarter	416,569	16.6%	69,470	2.8%	53,689	2.1%	684,767	27.3%	1,224,495	48.8%	1,146,667	45.7%	136,395	5.4%		0.0%	1,283,062	51.2%	2,507,557
4th Quarter	310,978	21.3%	49,344	3.4%	34,842	2.4%	120,344	8.3%	515,508	35.4%	765,577	52.5%	169,461	11.6%	6,858	0.5%	941,896	64.6%	1,457,404
Total 1942	1,373,616	18.6%	220,226	3.0%	149,153	2.0%	1,515,221	20.6%	3,258,216	44.2%	3,475,721	47.2%	577,073	7.8%	58,268	0.8%	4,111,062	55.8%	7,369,278
1943																			
1st Quarter	486,912	22.6%	65,474	3.0%	30,200	1.4%	144,128	6.7%	726,714	33.8%	1,181,338	54.9%	230,055	10.7%	14,299	0.7%	1,425,692	66.2%	2,152,406
2nd Quarter	100,967	14.8%	53,254	7.8%	15,231	2.2%	22,452	3.3%	191,904	28.1%	252,954	37.1%	237,683	34.8%		0.0%	490,637	71.9%	682,541
3rd Quarter	562,604	19.6%	111,125	3.9%	14,413	0.5%	115,714	4.0%	803,856	28.1%	1,829,666	63.9%	231,139	8.1%		0.0%	2,060,805	71.9%	2,864,661
4th Quarter	418,225	19.4%	70,903	3.3%	15,315	0.7%	85,512	4.0%	589,955	27.3%	1,349,890	62.6%	217,607	10.1%	443	0.0%	1,567,940	72.7%	2,157,895
Total 1943	1,568,708	20.0%	300,756	3.8%	75,159	1.0%	367,806	4.7%	2,312,429	29.4%	4,613,848	58.7%	916,484	11.7%	14,742	0.2%	5,545,074	70.6%	7,857,503
1944																			
1st Quarter	414,298	19.3%	95,021	4.4%	8,779	0.4%	52,663	2.5%	570,761	26.6%	1,289,049	60.1%	280,714	13.1%	2,979	0.1%	1,572,742	73.4%	2,143,503
2nd Quarter	206,193	15.7%	86,901	6.6%	12,787	1.0%	38,377	2.9%	344,258	26.3%	677,318	51.7%	287,890	22.0%		0.0%	965,208	73.7%	1,309,466
3rd Quarter	374,817	18.2%	75,017	3.6%	15,491	0.8%	45,465	2.2%	510,790	24.8%	1,261,089	61.3%	284,353	13.8%		0.0%	1,545,442	75.2%	2,056,232
4th Quarter	216,754	15.8%	72,907	5.3%	17,363	1.3%	31,058	2.3%	338,082	24.7%	748,725	54.7%	282,385	20.6%	248	0.0%	1,031,358	75.3%	1,369,440
Total 1944	1,212,062	17.6%	329,846	4.8%	54,420	0.8%	167,563	2.4%	1,763,891	25.6%	3,976,181	57.8%	1,135,342	16.5%	3,227	0.0%	5,114,750	74.4%	6,878,641
1945																			
1st Quarter	410,066	19.1%	78,017	3.6%	17,979	0.8%	51,459	2.4%	557,521	25.9%	1,341,025	62.3%	252,523	11.7%	1,087	0.1%	1,594,635	74.1%	2,152,156
2nd Quarter	147,577	17.1%	70,011	8.1%	8,530	1.0%	17,178	2.0%	243,296	28.2%	522,834	60.7%	95,221	11.1%		0.0%	618,055	71.8%	861,351
Total 1945	557,643	18.5%	148,028	4.9%	26,509	0.9%	68,637	2.3%	800,817	26.6%	1,863,859	61.9%	347,744	11.5%	1,087	0.0%	2,212,690	73.4%	3,013,507
Total during the war with Germany																			
Total	5,177,410	17.5%	1,100,327	3.7%	540,580	1.8%	4,454,709	15.1%	11,273,026	38.1%	15,186,030	51.3%	3,042,812	10.3%	90,881	0.3%	18,319,723	61.9%	29,592,749
Campaign in the East (9th August - 2nd September 1945)																			
25 Days	9,780	26.8%			1,340	3.7%	911	2.5%	12,031	33.0%	19,562	53.7%	4,863	13.3%			24,425	67.0%	36,456
Total during the Great Patriotic War																			
Total	5,187,190	17.5%	1,100,327	3.7%	541,920	1.8%	4,455,620	15.0%	11,285,057	38.1%	15,205,592	51.3%	3,047,675	10.3%	90,881	0.3%	18,344,148	61.9%	29,629,205

* Excludes NKVD personnel (refer text) and Table 1.

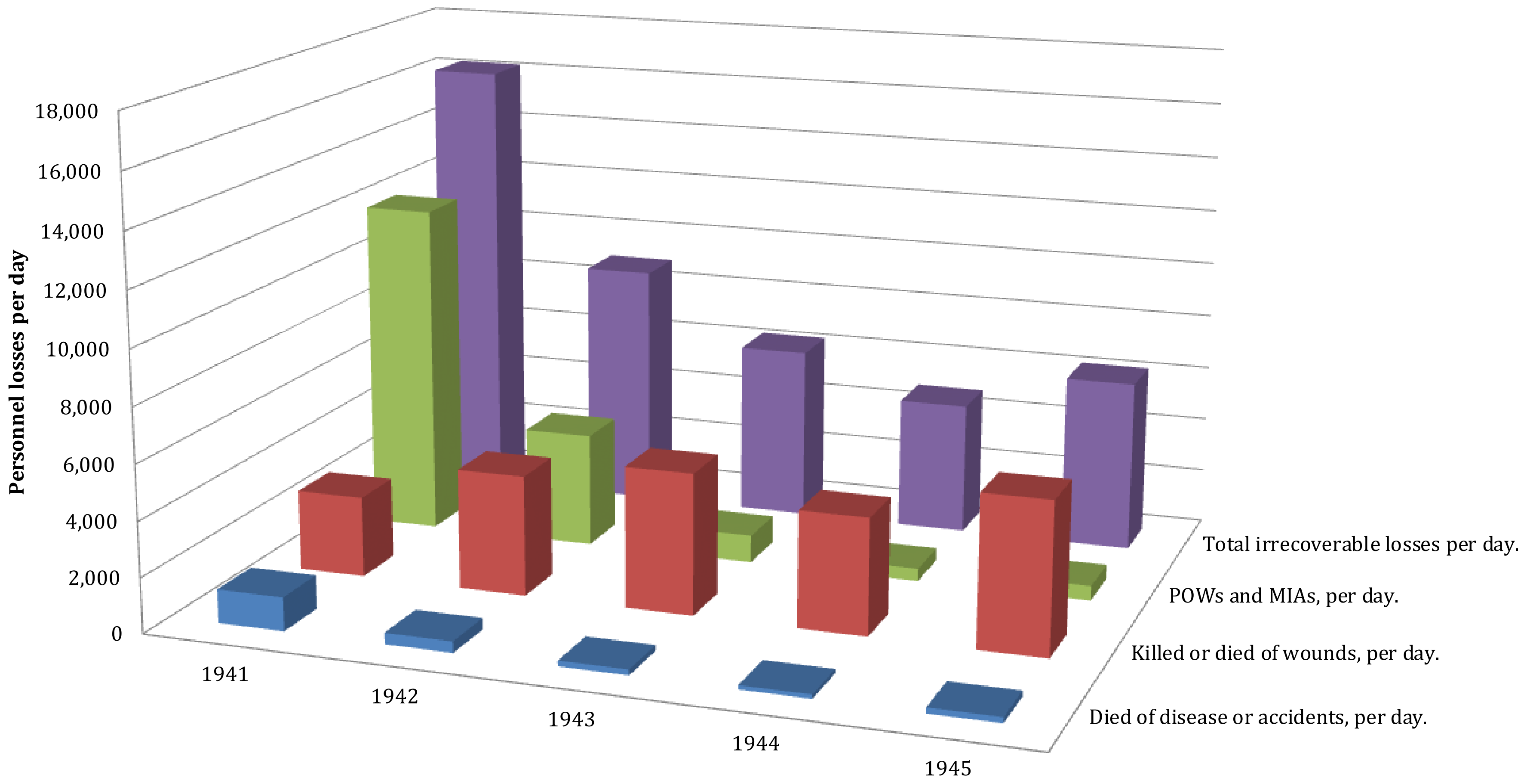
Table 3

Krivosheev Data on Red Army and Navy Losses in the Great Patriotic War, 1941 - 1945, by Rank, Year and Quarter Year*

	Irrecoverable losses (killed or missing in action, died of wounds or disease, POWs, non-combat losses)					Sick and wounded (including frostbite)					Total casualties				
Period	Officers	Sergeants	Men	Total	%	Officers	Sergeants	Men	Total	%	Officers	Sergeants	Men	Total	%
1941															
3rd Quarter	142,043	310,955	1,676,679	2,129,677	18.9%	48,192	81,560	557,874	687,626	3.7%	190,235	392,515	2,234,553	2,817,303	9.5%
4th Quarter	61,040	137,002	809,954	1,007,996	8.9%	42,748	84,257	521,516	648,521	3.5%	103,788	221,259	1,331,470	1,656,517	5.6%
Total 1941	203,083	447,957	2,486,633	3,137,673	27.8%	90,940	165,817	1,079,390	1,336,147	7.3%	294,023	613,774	3,566,023	4,473,820	15.1%
1942															
1st Quarter	45,678	92,728	536,909	675,315	6.0%	72,324	152,578	954,555	1,179,457	6.4%	118,002	245,306	1,491,464	1,854,772	6.3%
2nd Quarter	60,185	135,006	647,707	842,898	7.5%	45,684	94,036	566,927	706,647	3.9%	105,869	229,042	1,214,634	1,549,545	5.2%
3rd Quarter	101,429	222,404	900,662	1,224,495	10.9%	102,136	217,845	963,081	1,283,062	7.0%	203,565	440,249	1,863,743	2,507,557	8.5%
4th Quarter	47,969	94,151	373,388	515,508	4.6%	75,451	162,866	703,579	941,896	5.1%	123,420	257,017	1,076,967	1,457,404	4.9%
Total 1942	255,261	544,289	2,458,666	3,258,216	28.9%	295,595	627,325	3,188,142	4,111,062	22.4%	550,856	1,171,614	5,646,808	7,369,278	24.9%
1943															
1st Quarter	63,169	141,781	521,764	726,714	6.4%	128,416	250,600	1,046,676	1,425,692	7.8%	191,585	392,381	1,568,440	2,152,406	7.3%
2nd Quarter	21,523	33,850	136,531	191,904	1.7%	36,877	70,708	383,052	490,637	2.7%	58,400	104,558	519,583	682,541	2.3%
3rd Quarter	77,262	192,069	534,525	803,856	7.1%	149,714	460,238	1,450,853	2,060,805	11.2%	226,976	652,307	1,985,378	2,864,661	9.7%
4th Quarter	40,451	107,259	442,245	589,955	5.2%	107,769	254,326	1,205,845	1,567,940	8.5%	148,220	361,585	1,648,090	2,157,895	7.3%
Total 1943	202,405	474,959	1,635,065	2,312,429	20.5%	422,776	1,035,872	4,086,426	5,545,074	30.2%	625,181	1,510,831	5,721,491	7,857,503	26.5%
1944															
1st Quarter	50,556	113,731	406,474	570,761	5.1%	114,468	284,108	1,174,166	1,572,742	8.6%	165,024	397,839	1,580,640	2,143,503	7.2%
2nd Quarter	38,815	66,035	239,408	344,258	3.1%	70,665	165,666	728,877	965,208	5.3%	109,480	231,701	968,285	1,309,466	4.4%
3rd Quarter	46,673	105,457	358,660	510,790	4.5%	122,830	300,419	1,122,193	1,545,442	8.4%	169,503	405,876	1,480,853	2,056,232	6.9%
4th Quarter	28,762	61,861	247,459	338,082	3.0%	76,606	183,155	771,597	1,031,358	5.6%	105,368	245,016	1,019,056	1,369,440	4.6%
Total 1944	164,806	347,084	1,252,001	1,763,891	15.6%	384,569	933,348	3,796,833	5,114,750	27.9%	549,375	1,280,432	5,048,834	6,878,641	23.2%
1945															
1st Quarter	49,661	121,812	386,048	557,521	4.9%	125,932	339,103	1,129,600	1,594,635	8.7%	175,593	460,915	1,515,648	2,152,156	7.3%
2nd Quarter	23,502	48,502	171,292	243,296	2.2%	52,480	123,697	441,878	618,055	3.4%	75,982	172,199	613,170	861,351	2.9%
Total 1945	73,163	170,314	557,340	800,817	7.1%	178,412	462,800	1,571,478	2,212,690	12.1%	251,575	633,114	2,128,818	3,013,507	10.2%
Total during the war with Germany															
Total	898,718	1,984,603	8,389,705	11,273,026	99.9%	1,372,292	3,225,162	13,722,269	18,319,723	99.9%	2,271,010	5,209,765	22,111,974	29,592,749	99.9%
Campaign in the East (9th August - 2nd September 1945)															
25 Days	1,470	3,568	6,993	12,031	0.1%	2,019	7,123	15,283	24,425	0.1%	3,489	10,691	22,276	36,456	0.1%
Total during the Great Patriotic War															
Total	900,188	1,988,171	8,396,698	11,285,057	100%	1,374,311	3,232,285	13,737,552	18,344,148	100%	2,274,499	5,220,456	22,134,250	29,629,205	100%

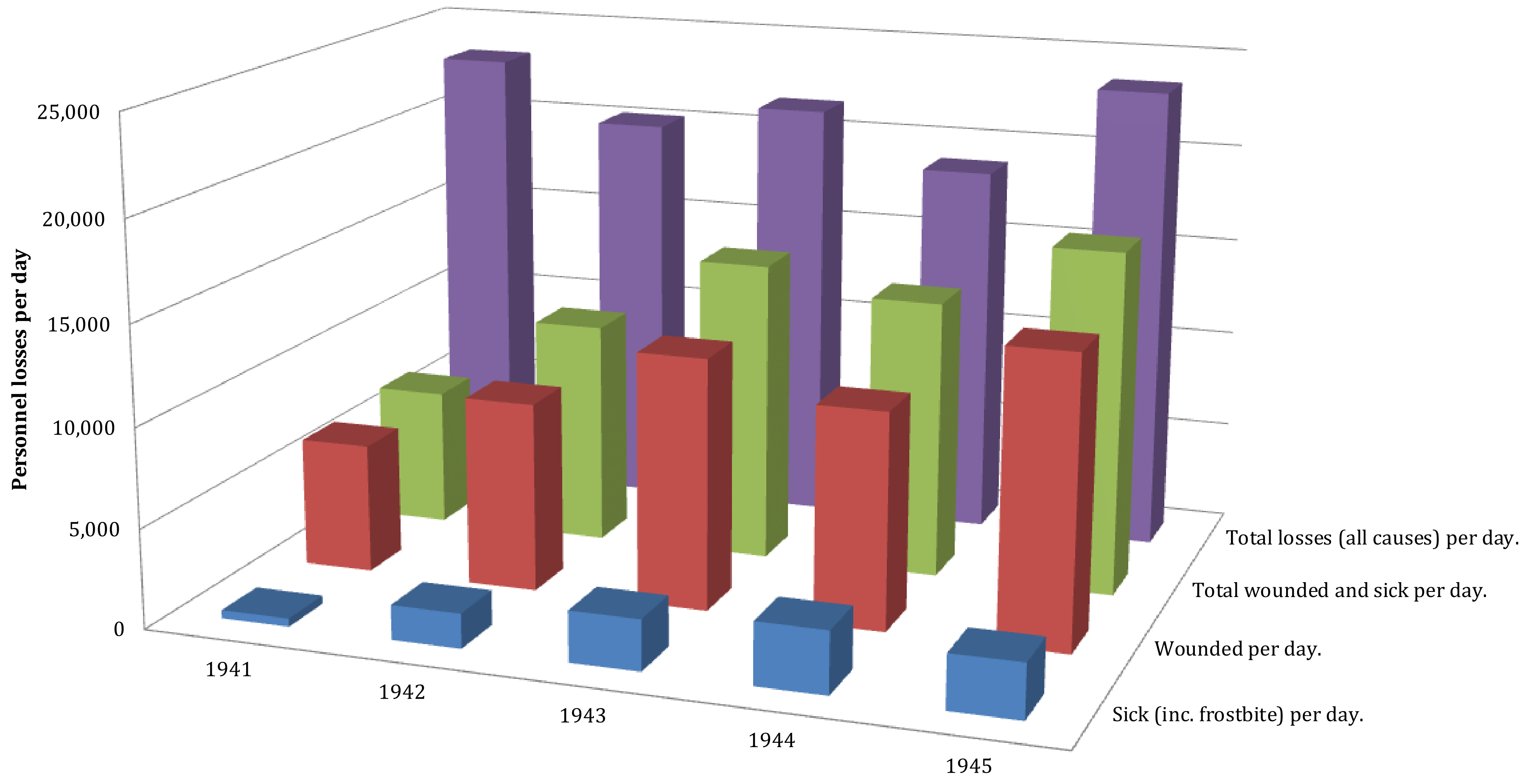
* Excludes NKVD personnel (refer text) and Table 1.

Krivosheev Data on Soviet Irrecoverable Losses per Day; 22nd June 1941 to 8th May 1945



	1941	1942	1943	1944	1945
Died of disease or accidents, per day.	1,219	409	206	149	207
Killed or died of wounds, per day.	2,937	4,367	5,122	4,224	5,513
POWs and MIAs, per day.	12,101	4,151	1,008	459	536
Total irrecoverable losses per day.	16,257	8,927	6,335	4,833	6,256

Krivosheev Data on Soviet Wounded and Sick, and Total Losses, per Day; 22nd June 1941 to 8th May 1945



	1941	1942	1943	1944	1945
Sick (inc. frostbite) per day.	413	1,741	2,551	3,119	2,725
Wounded per day.	6,510	9,523	12,641	10,894	14,561
Total wounded and sick per day.	6,923	11,263	15,192	14,013	17,287
Total losses (all causes) per day.	23,180	20,190	21,527	18,846	23,543

Table 2 (simplified). Krivosheev Data on Red Army and Navy Losses in the Great Patriotic War, 1941 - 1945.*				
Period	Total, irrecoverable losses No.	Total, recoverable losses No.	Total Losses No.	Total, irrecoverable and wounded No.
Total 1941	3,138,000	1,336,000	4,474,000	4,394,000
Total 1942	3,258,000	4,111,000	7,369,000	6,734,000
Total 1943	2,312,000	5,545,000	7,857,000	6,926,000
Total 1944	1,764,000	5,115,000	6,879,000	5,740,000
Total 1945	801,000	2,213,000	3,014,000	2,665,000
Total during the war with Germany				
Total	11,273,000	18,320,000	29,593,000	26,459,000
Campaign in the East (9th August - 2nd September 1945)				
25 Days	12,000	24,000	36,000	32,000
Total during the Great Patriotic War				
Total	11,285,000	18,344,000	29,629,000	26,491,000

* Excludes NKVD personnel (refer text) and Table 1.

Between 22nd June 1941 and wars' end, around 29,574,900 personnel were drafted into the Soviet armed forces (excluding those called up twice, presumably from the liberated territories late in the war). This averages out to almost 7,400,000 million persons drafted every year (for four years) until the end of WWII. (Krivosheev data).

By May 1945 the Soviet armed forces strength was around 11,500,000 personnel, of which around 6,500,000 were "with the fighting troops". (Krivosheev data).

Adding the initial force of around 5,448,000 personnel, this means that approximately 23,523,000 military personnel were 'lost' (including those removed or discharged) to the Soviet armed forces during the war.

Krivosheev states the total number 'lost' in this regard amounted to only 21,636,900 personnel, and then indicates that significant numbers left the armed forces for various reasons. These 'reasons' included 3,798,200 on permanent 'sick leave', and 4,789,200 personnel sent to industry and secondary defensive duties. But it is still very likely that the latter also remained unfit for active military service in the Red Army.

3. - Some of the data inconsistencies and contradictions relating to low 1941 loss estimates.

Table Sov. Pers. Summary, 1941

A Summary of the Personnel Available to the Soviet Armed Forces, 22nd June to 31st Dec. 1941

Total number of personnel in the Soviet armed forces on 22nd June 1941.*	**5,448,000**
Total number of personnel allocated to ground combat units in a Deployed (D) State on 22nd June 41.^	**4,012,000**
Total number of personnel in: rear area support, naval sea units, air force air units, and other support functions on 22nd June 1941.*^	**1,436,000**
% of the overall personnel in Deployed (D) ground combat units on 22nd June 1941.^	**74%**
Total number of personnel mobilised in the USSR from 22nd June to 31st December 1941.**	**11,790,000**
Total number of called up reservists (mobilised reservists) captured by the Wehrmacht on their way to their military units (mainly in the period June to August 1941).	**500,000**
Approximate number of 'mobilised personnel' that remained (mostly unarmed) in civilian militia units on 1st January 1942 (in all areas of the USSR, but especially in the internal military districts).	**700,000**
Approximate number of 'mobilised personnel' that were returned to the war economy as a result of over mobilisation' in 1941 (i.e., skilled workers returned to the war economy).	**300,000**
Total number of mobilised personnel actually available to the Soviet armed forces from 22nd June to 31st December 1941.	**10,290,000**
Total number of mobilised personnel allocated to MD and MND ground combat units, from 22nd June to 31st December 1941.	**5,100,000**
Total number of mobilised personnel allocated as Replacements (R) to ground combat units, from 22nd June to 31st December 1941.	**2,680,000**
Total number of mobilised personnel used in: rear area support, naval sea units, air force air units, and other support functions, from 22nd June to 31st December 1941.*^	**2,510,000**
% of the mobilised personnel in MD and MND ground combat units, or used as Replacements (R), from 22nd June to 31st December 1941.	**76%**

*** Includes personnel in the Soviet Army, NKVD tactical (combat capable) forces, Air Force, PVO and Navy.**

^ Includes the Soviet Army, NKVD tactical, Air Force Ground Units, PVO Ground Units and Naval Ground Units. Includes all the units shown in the 'Soviet Deployment Matrix' and the 'Soviet NKVD Deployment Matrix'.

**** Total No.; includes all Replacements (R), militia, NKVD, Air Force, Naval, PVO and civilians under military command. Another 700,000 were mobilised in the period 1st January to 1st March 1942.**

***^ Includes personnel on naval vessels and naval bases supporting naval operations, and VVS personnel in air units and on airbases supporting air operations. Note, naval (VMF) and air force (VVS) personnel used in units which were capable of any form of ground combat, are included in the % of personnel in D, MD and MND combat units and as Replacements (R). These combat units include naval infantry brigades, coastal artillery units and all types of PVO ground units.**

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Soviet Army Divisions Deployed (D), 22nd June 1941.*

	Number
Rifle Divisions	179
Mtn. Rifle Divisions	19
Tank Divisions	61
Mech. Divisions	31
Cavalry Divisions	9
Mtn. Cav. Divisions	4
Total	303

*** Excluding NKVD forces.**

Primary Soviet Army Units Mobilised and Deployed (MD), 23rd June to 31st December 1941.*

	Number
Rifle Divisions	225
Mtn. Rifle Divisions	1
Tank Divisions	8
Mech. Divisions	3
Cavalry Divisions	50
Mtn. Cav. Divisions	1
Total, Divisions	288
Rifle Brigades (all types)^	118
Tank Brigades (all types)	62
Total, Brigades	180

*** Excluding NKVD forces. Also excludes renamed and/or rebuilt (D) divisions and new units not assigned to any active Army or Front HQ in 1941.**

^ Includes naval infantry/rifle brigades and airborne brigades.

In May 1942, Colonel Efremov (Chief of the Organisation and Records Department, Operations Directorate of the General Staff of the Red Army) produced a report detailing the overall state of mobilisation, casualties and strengths in the Red Army for the period 22nd June to 1st March 1942.

Table 4. Unaccounted For, or 'Missing', Soviet Casualties between 22nd June 1941 and 1st March 1942, Based on the Efremov Report of 1st May 1942.

	Red Army Strength**	Reported Casualties, Lost in Period*	Actual Losses	Mobilised & Joined the Red Army in Period^	Projected Strength, Without Casualties, on 1st March 1942
Status 22nd June 1941	4,924,000				
Status 1st March 1942	9,315,000	4,642,000	7,799,000	12,190,000	17,114,000
Unaccounted for, 'missing', casualties which were lost.			3,157,000		

Reported total casualties*	
June and July 1941	667,000
Aug. Sep. and Oct. 1941	2,462,000
November 1941	875,000
December 1941	552,000
January 1942	558,000
February 1942	528,000
Total casualties	5,642,000
Returned to service	1,000,000
Total lost in period	4,642,000

* Compiled from data within the Colonel Efremov (1st May 1942) report, and including approximately 1,000,000 wounded or sick that returned to active service that are also mentioned in the report. Colonel Efremov also states 3,217,000 were 'irrecoverable losses'; by which he probably means killed, otherwise deceased or POWs.

^ A total of 11,790,000 men were mobilised from 22nd June 1941 to 31st December 1941, and around 300,000 of these were returned to the war economy as a result of 'over mobilisation' in 1941 (i.e., skilled workers returned to the war economy). A further 700,000 men were mobilised from 1st January to 28th February 1942.

Also of note, the Red Army committed 751,000 men as Replacements (R) in January 1942 and another 770,000 men as Replacements (R) in February 1942. This reflects the massive casualties suffered during the 1941-1942 the Soviet winter counter-offensive. Around 700,000 of these Replacements (R) were mobilised in 1941 and were held, mostly unarmed, in militia units until January 1942. Around 2,680,000 personnel were used as Replacements (R) from 22nd June to 31st December 1941. Refer to Volume IIIB 15) b. i., table Sov. Pers. Summary, 1941, for a summary breakdown of these Soviet 'human resources'.

** Efremov is careful to state Red Army (only) throughout his report. In Soviet high level reports of this period, this also usually included the VVS (Air Force). Altogether, the Soviet armed forces (including the NKVD) had approximately 5,448,000 personnel on 22nd June 1941.

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Table 5

Unaccounted For, or 'Missing', Soviet Casualties between 22nd June and 31st December 1941, using Krivosheev Statistical Data for Strengths and Casualties.

	Red Army Strength	Reported Casualties, Lost in Period**	Actual Losses	Mobilised & Joined the Red Army in Period*^	Projected Strength, Without Casualties, in December 1941
Status 22nd June 1941	4,902,000*				
Status December 1941	7,733,000	4,474,000	7,959,000	10,790,000	15,692,000

Unaccounted for, 'missing', casualties which were lost.	3,485,000
Unaccounted for, 'missing', casualties which were lost, after accounting for the 500,000 captured & killed reservists.^^	2,985,000

* *Rossiia i SSSR v voinakh XX veka: Poteri vooruzhennykh sil*. (Russia and the USSR in Wars of the 20th Century: Armed forces casualties), Colonel General G.F. Krivosheev (ed.), et al, Moscow, Olma Press, 2001, p. 247, Table 132. Includes 4,826,900 Army and Navy, and 74,900 military personnel in other 'departments" (rounded up).

** Ibid, pp. 250-251, Table 133. Also shown in Table 2. This figure ignores wounded or sick that returned to active service. If these are included then the unaccounted for, 'missing', casualties would be even higher.

*^ A total of 11,790,000 men were mobilised from 22nd June 1941 to 31st December 1941. However, around 300,000 of these were returned to the war economy, and around 700,000 remained (mostly unarmed) in civilian militia units on 1st January 1942. These are therefore excluded from the 10,790,000 figure. Refer to Volume IIIB 15) b. i., table Sov. Pers. Summary, 1941, for a summary breakdown of these Soviet 'human resources'.

^^ Krivosheev does not include these as military casualties, but has then had to list them as a separate irrecoverable loss item. They are excluded from Table 2, but are shown as a separate item in Table 1.

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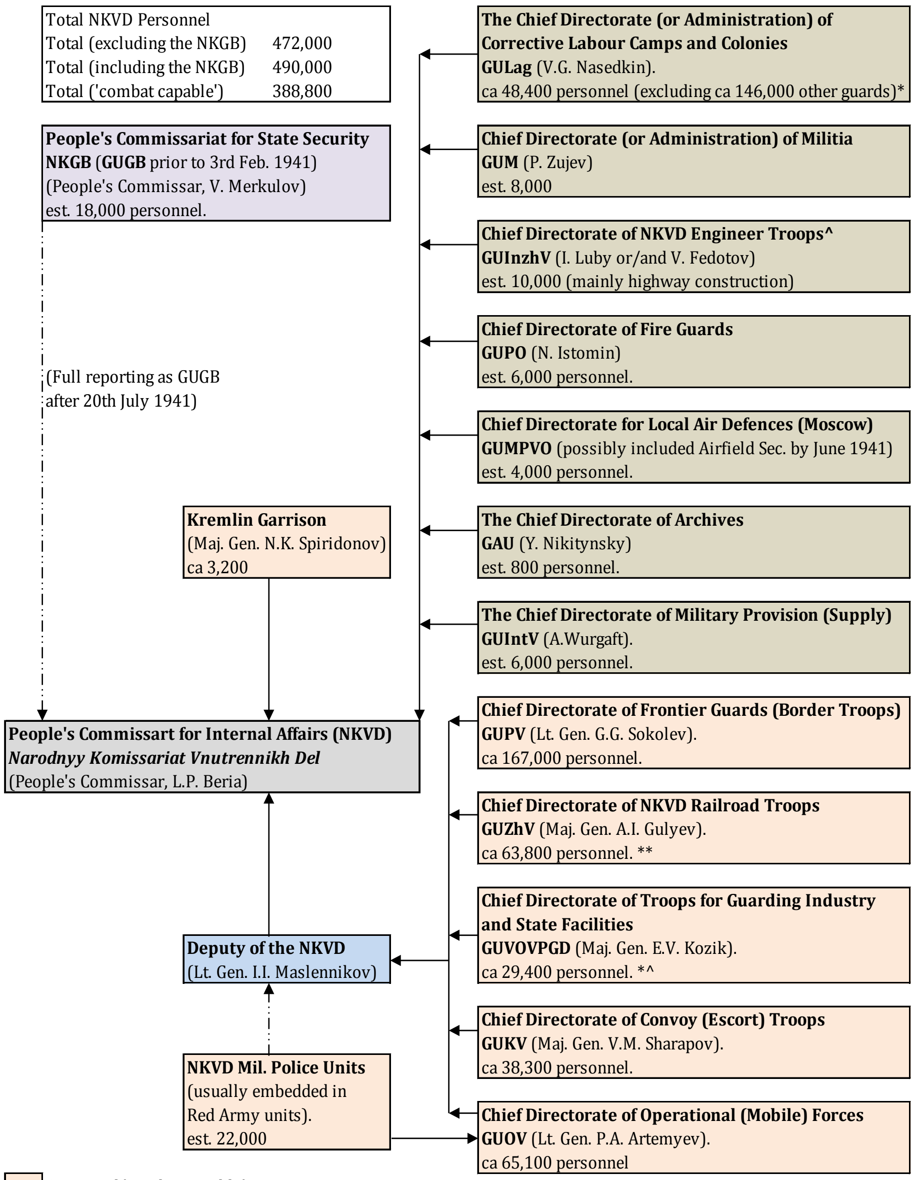
Diagram NKVD Org.

The Overall Reporting Structure for the Principal Elements of the Soviet NKVD, June 1941



Contained 'combat capable' troops.

* Excludes around 108,000 NKVD guard 'employees' and another 38,000 'prisoner guards' (refer text).

^ The 'Chief Directorate of Highways (1939)', GUSOSDOR, is not listed as a Separate Directorate in June 1941. It appears to have merged with the 'Chief Directorate of Military Construction (1939)' to form the GUInzhV by 1941.

** Excludes approximately 5,400 personnel from the GUVOVPGD which assigned to HQs in the GUZhV.

*^ Includes approximately 5,400 personnel from the GUVOVPGD which assigned to HQs in the GUZhV.

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3. - Some words on the NKVD - strength and probable losses in 1941

Table Soviet NKVD Deployment Matrix	Total: All Military Districts and Fronts Soviet NKVD Ground, Naval and Air Units 22nd June 1941	
	Total No.	**Notes**
Border District HQs	**18**	These units reported to the NKVD
Border Guard Units*	**94**	Chief Directorate of Frontier Guards
Remount Cav. Regiments	**3**	(Border Troops),
NKVD Naval Detachments**	**12**	GUPV (L Gen. G.G. Sokolov).
NKVD Air Squadrons*^	**11**	
Rail Sec. Div. & Brigade HQs	**14**	These units reported to the NKVD
Rail Security Regiments	**34**	Chief Directorate of NKVD Railroad Troops
Rail Security Battalions	**14**	GUZhV (Maj. Gen. A.I. Gulyev).
Armoured Security Trains	**33**	
Ind. Gds. Div. & Brigade HQs	**5**	These units reported to the NKVD
Industry Guard Regiments	**10**	Chief Directorate of Troops for Guarding
Industry Guard Battalions	**25**	Industry and State Facilities,
Industry Guard Companies	**12**	GUVOVPGD (Maj. Gen. E.V. Kozik).
Con. Esc. Div. & Brigade HQs	**9**	These units reported to the NKVD
Convoy Escort Regiments	**20**	Chief Directorate of Convoy (Escort) Troops,
Convoy Escort Battalions	**24**	GUKV (Maj. Gen. V.M. Sharapov).
Motorised Rifle Divisions	**1**	These units reported to the NKVD
Mot. Rifle Regiments^^	**14**	Chief Directorate of Operational
Separate Cavalry Regiments	**4**	(Mobile) Forces (except for the Kremlin
Sep. Mot. NKVD Battalions	**2**	Garrison Special Purpose Regiment).
Sep. Mot. NKVD Companies	**1**	GUOV (Lt. Gen. P.A. Artemyev).

* Includes the 99th Border Guard Unit on the Hanko peninsula in Finland. Some sources refer to this unit simply as the Hanko Coast Defence Detachment.

^ Includes the NKVD Special Purpose Motorized Rifle Division in Moscow. The 21st, 22nd and 23rd NKVD Mot. Rifle Divisions had basic HQs only, or were just forming a HQ (as part if the NKVD's pre-war mobilisation plan).

** Includes Port Vessel Detachments.

*^ Excludes two small MBR-2 Flights.

^^ Excludes the 4th and 48th Motorised Chemical Regiments in the Moscow Military District (which reported directly to the main GUOV Directorate). Includes the Special Purpose Regiment (assigned to the Kremlin Garrison HQ), which did not report to the GUOV Directorate.

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3. - Some words on the NKVD - strength and probable losses in 1941.

- Krivosheev states only 61,400 Border Troops and 97,700 Internal Service Troops (159,100 Total) were irrecoverably lost in WWII (refer Table 1). These are not included in the total Army and Navy losses shown in Table 2 and Table 3.

- Of the approximately 636,000 troops, employees, guards, etc. in the NKVD in June 1941, around 389,000 troops were fully armed and 'combat capable'. A great many of these units were deployed in the Western Special Military Districts in June 1941 and were subsequently destroyed. E.g., of the 48 original NKVD Border Guard Units deployed in the western USSR on 22nd June 1941, only 26 survived with sufficient cadre to be redesignated as Border Guard Regiments.

- Around 114,000 KNVD personnel were used in the formation of 15 new RKKA rifle divisions in June –July 1941. These were thereafter part of the Red Army (and so casualties amongst these were likely recorded in Army and Front loss reports used to produce the data in Table 2 and Table 3).

- Around 134,000 (mostly newly recruited) NKVD personnel went into newly mobilised NKVD units from June – Dec. 1941, which were also assigned to active Army and Front HQs during 1941. These are shown in the table below.

Soviet NKVD Units Mobilised and Deployed (MD), 23rd June to 31st December 1941.*

	Number
NKVD Mot. Rifle Divisions	4
NKVD Rifle Divisions	3
NKVD Border Regiments	17
NKVD Rail Sec. Regiments	18
NKVD Rail Sec. Battalions	11
NKVD IGSIS Guard Regiments	15
NKVD IGSIS Guard Battalions	5
NKVD Convoy Escort Regiment	8

*** Excludes renamed and/or rebuilt (D) units, and new units not assigned to any active Army or Front HQ in 1941.**

- Based on the (admittedly sketchy) unit histories, best estimates are that at least 140,000 NKVD irrecoverable losses occurred in 1941, excluding the losses in the 114,000 troops assigned directly to RKKA (Red Army) units.

- This is already close to 90% of Krivosheev's figure representing all the NKVD's losses for the entire war.

3. - Recoverable losses according to medical records, and those wounded multiple times.

Table 6. Soviet Wounded and Sick According to Military Medical Records

Year	Losses	Comprising	
		Wounded, concussion, burns, and frostbite cases.*	Sick^
1941	2,118,666	1,712,981	405,685
1942	5,573,484	3,625,351	1,948,133
1943	6,299,955	4,124,093	2,175,862
1944	5,901,524	3,520,203	2,381,321
1945	2,433,276	1,702,965	730,311
Total	**22,326,905**	**14,685,593**	**7,641,312**

* 1,104,110 (7.5%) of wounded died before war's end (included in irrecoverable losses).
^ 267,394 (3.5%) of sick died before war's end (included in irrecoverable losses).

Compared to Table 2, after taking account of the irrecoverable losses (above),

Table 6 (above)	**20,955,401**	**13,581,483**	**7,373,918**
Table 1	**18,344,148**	**15,296,473**	**3,047,675**
Difference	**2,611,253**	**-1,714,990**	**4,326,243**

Table 7. Soviet Red Army Servicemen Wounded Multiple Times.

No. of times wounded	Number ot times wounded				Times recorded	Included in the number of wounded
	Officers	Sergeants	Men	**Total**		
Twice	135,352	230,164	374,646	**740,162**	x2	**1,480,324**
3 times	64,613	106,698	137,762	**309,073**	x3	**927,219**
4 times	23,104	35,119	40,780	**99,003**	x4	**396,012**
5 times	7,864	10,759	11,334	**29,957**	x5	**149,785**
6 times	2,496	3,395	3,234	**9,125**	x6	**54,750**
7(+) times	1,226	1,552	1,200	**3,978**	x7	**27,846**
Total	**234,655**	**387,687**	**568,956**	**1,191,298**		**3,035,936**

Potential difference to Table 2 (depending on the specific statistical-analysis or application), could be as high as:

Wounded reduced from 15,296,473 to 12,260,537. **A reduction of around 20%.**

Total losses reduced from 29,629,205 to 26,598,269 **A reduction of around 10%.**

Table Sov. POWs (1)		
Cat.	**The Krivosheev Study Breakdown of the Fate of Soviet POWs and MIAs ~**	
1	POW servicemen who returned from captivity at the end of the war (based on figures from repatriation organisations). Also used in table 1.	1,836,000
2	POWs that died, or were killed, in captivity (Krivosheev supplied 'German figures').	673,000
3	Add. POWs that died, or were killed, in captivity (Krivosheev supplied 'Russian figures').	305,300
4	POWs who emigrated to other countries after the war (180,000 plus).	180,000
5	POWs whose fate is unknown.	125,000
	Total, where each individual category is actually called 'POWs'.	**3,119,300**
6	Servicemen who were encircled or were missing in action in occupied territories, and who were re-conscripted once the area was liberated. Also used in table 1, where Krivosheev classifies these as MIAs and not POWs, which also apparently survived the war and returned to the USSR after the war.	939,700
	Total, that Krivosheev actually calls 'POWs' at later points in the study; which then contradicts table 1 (which lists the 939,700 MIAs above as re-conscripted, none POWs, from liberated areas).	**4,059,000**
7	Servicemen killed on the battlefield but listed as MIAs.*	500,000
	Total, as used for all: MIAs, POWs and 'unrecorded casualties from the first months of war (in 1941)', and used in table 1. Later in the text, when discussing 'POWs that died in captivity', Krivosheev states all 4,559,000 were POWs, with 2,500,000 having 'died in captivity'. This then completely contradicts table 1, and all the above 'category 2, 3, 6 and 7' items above.	**4,559,000**
8	Mobilised reservists captured or killed before being taken on unit strength (in 1941). These are listed and the treated as a separate 'unrelated item' in table 1. They are treated as civilians in the calculation of all types of military irrecoverable losses.	500,000
	Total, all: POWs, MIAs, 'unrecorded casualties from the first months' and 'mobilised reservists captured before being taken on unit strength'.	**5,059,000**
	% of 4,559,000 that were killed or died in captivity.**	**21%**
	% of 4,559,000 that returned to USSR post-war.	**61%**
	% of 4,559,000 that immigrated or their fate was unknown.	**7%**
	% of 4,559,000 that were killed on the battlefield, but are still listed as MIAs.	**11%**

	Released POWs; Mentioned in the Text, but then Ignored in all POW & MIA Figures	
9	POWs released by the Germans from 25th July to 13th November 1941 (refer text).	**318,770**
10	POWs released by the Germans from early 1942 to 1st May 1944 (refer text).	**504,460**
	Total, Released POWs^	**823,230**

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4. Soviet prisoners of war (POWs): the inconvenient truth,
- The Soviet / Russian position:
"confusing, convoluted and contradictory".

~ Excluded are POWs from: partisans, resistance fighters, militia in units not assigned a Red Army designation, militia in fighter battalions, militia in police units, female servicewomen and local air-defence force personnel.
NKVD border troops and internal service troops are included.

*** It is unclear why these are not listed elsewhere as irrecoverable Killed in Action (KIA) casualties, apart from increasing the MIA figures (and implied POW figures) while reducing the KIA figures.**

**** This equates to only around 978,000 POWs that were killed or died in captivity. Krivosheev later states that around 2,500,000 Soviet POWs died in German captivity (refer text) several times, completely contradicting his own data.**
This equates to 55% of the 4,559,000 figure, and (alone) destroys the data's integrity. In particular, it brings the whole 939,700 MIA and then re-conscripted figure into serious question, and, in turn, the final irrecoverable losses figures in table 1.

^ Krivosheev makes no mention of the additional ca. 200,000 Soviet POWs that were released in late 1944 and 1945, and served with the Osttruppen (Eastern Troops) in the Wehrmacht.

Reminder from Table 2.
Total 1941 POWs and MIAs (including all "unrecorded casualties from the first months"), was (only) stated as around **2,335,000**

4. Soviet prisoners of war (POWs) - German statements and sources.

Table Sov. POWs (2)

Soviet POWs Captures by German Forces from 22nd June 1941 to 10th January 1942*

Month	Ca. 10 Day Period	Total^	Officers	Cumulative Total	Cumulative Officers	POWs captured	Major Pocket POWs	End Date	Event and/or Region
						Selected Historical Events and the Approximate Correlation of POWs			
June	22nd-30th	112,784	645	112,784	645	366,372	323,000	9th July	Bialystok-Minsk Pockets
July	1st-10th	253,588	1,324	366,372	1,969				
	11th-20th	234,366	405	600,738	2,374		35,000	25th July	Mogilev Pocket
	21st-31st	213,092	648	813,830	3,022	719,172	309,000	5th August	Smolensk Pocket
August	1st-10th	271,714	1,625	1,085,544	4,647		39,000	6th August	Roslavl Pocket
	11th-20th	211,225	647	1,296,769	5,294		103,000	12th August	Uman Pocket
	21st-31st	215,641	552	1,512,410	5,846	426,866	78,000	21st August	Gomel and Krichev
							18,000	23rd August	Lake Ilmen
							34,000	27th August	Velikie Luki
September	1st-10th	203,668	749	1,716,078	6,595		11,000	4th September	Estonia
	11th-20th^	234,574	605	1,950,652	7,200	989,203	35,000	15th September	Demyansk
	21st-30th^	550,961	1,553	2,501,613	8,753		665,000	26th September	Kiev Pocket^^
							20,000	30th September	Luga-Leningrad
October	1st-10th	288,485	861	2,790,098	9,614		106,000	11th October	Chernigovka Pocket
	11th-20th	499,476	3,392	3,289,574	13,006	1,037,778	673,000	19th October	Vyazma-Bryansk Pocket*^
	21st-31st	249,817	931	3,539,391	13,937				
November	1st-10th	152,296	742	3,691,687	14,679				
	11th-20th	85,786	312	3,777,473	14,991	291,934	100,000	16th November	Kerch
	21st-30th	53,852	64	3,831,325	15,055				
December	1st-10th	39,596	74	3,870,921	15,129				
	11th-20th**	19,277	0	3,890,198**	15,129**	86,823			
	21st-31st**	16,567	67	3,906,765**	15,196**				
January 42	1st-10th**	11,383	25	3,918,148**	15,221**				
						3,378,589**	**2,549,000**	**Totals**	

* Includes POWs who subsequently died, escaped or were released.

^^ Reports on POWs from the Kiev Pocket are only partially cited.

^ Includes approximately 500,000 mobilised pre-war reservists captured by the Wehrmacht on their way to military units. Refer to Volume IIIB 2. 15) b. i., table Sov. Pers. Summary, 1941, (A Summary of the Personnel Available to the Soviet Armed Forces, 22nd June to 31st December 1941).

** On 20th December 1941 the OKH staff reduced the accumulated POW figure by 539,559 men (but added 50 officers to the accumulated total). The adjusted figures are: **20th Dec. 1941 (3,350,639 and 15,179), 31st Dec. 1941 (3,367,206 and 15,246), and 10th Jan 1942 (3,378,589 and 15,271).**

*^ The Vyazma-Bryansk Pocket POW figure is almost certainly significantly higher, especially to late October (refer text).

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Table 8		
Soviet Irrecoverable Losses of the Armed Forces in WWII, Based on Krivosheev Data for Killed, Died and MIA, and Taking into Account Corrected POW (Streit) Data.		
Killed and Died *		
Killed in action, died of wounds during evacuation (based on troop reports).	5,226,800	
Died in hospital of wounds (based on TsVMU MO figures).	1,102,800	
Died of disease, as a result of accident, sentenced to be executed.	555,500	
Total killed and died.	6,885,100	
MIAs		
MIAs who actually died or, being seriously wounded, remained on the Battlefield.^	ca. 500,000	
Additional MIA that were killed (includes the mobilised reservists).*,^	ca. 500,000	
Total MIAs that were actually killed or died.	est. 1,000,000 ~	
MIAs who avoided captivity.		
Re-conscripted and remobilised MIAs from occupied territories.*	939,700	
MIAs from above, that are already counted (below) as released POWs.~~	159,000	
Total MIAs that avoided captivity.	780,700	
Total POWs		
Held by the Germans.	5,734,500	
Held by the Rumanians**	82,100	
Held by the Finns	64,200	
Total POWs.^^	5,880,800	
Survived captivity.		
Set free by the Germans	1,023,200	
Returned to the Motherland (the USSR)*	1,836,000	
Emigrated^	180,000	
Total POWs that survived captivity.	3,039,200	51.7%
Died in captivity		
German	2,817,700	49.1%
Rumanian	5,200	6.3%
Finnish	18,700	29.1%
Total POWs that died in captivity.	2,841,600	48.3%
Total MIAs and POWs.*^,^^	7,661,500	
Total military-operational irrecoverable losses of servicemen.^^	14,546,600	

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4. Soviet prisoners of war (POWs).

* Taken from Table 1, which is based entirely on Krivosheev data.

^ Data from table Sov. POWs (1), which is also supplied by Krivosheev.
The 500,000 mobilised reservists are added as demographic-irrecoverable losses (i.e. permanent losses) in Table 1.

~ This is a relatively low estimate. It is very likely that the number of MIAs that were actually killed or died (and were never POWs) significantly exceeds this figure. At the present time there is insufficient reliable historical data to determine this number accurately.

~~ 318,770 POWs were released by 13th November 1941. Only around 159,000 were possibly remobilised for service later in the war.

** The Rumanians handed over some POWs to the Germans. Rumanian forces captured around 120,000 POWs.

*^ Note, the Krivosheev total figure for POWs and MIAs is only 4,559,000, (in Table 1 and Sov. POWs(1)), which is 3,102,500 fewer that shown here.

^^ POWs captured by 31st January 1945. Excludes POWs captured from 1st February to 8th May 1945.

C. Streit, *Keine Kameraden: Die Wehrmacht und die Sowjetischen Kriegsgefangenen* 1941–1945, (No Comrades: the Wehrmacht and the Soviet Prisoners of War 1941-1945), Studies in Contemporary History, 13, Stuttgart, 1978. A revised new edition was published in German in 1991 (and later republished in 1997.

5. Losses in Soviet Strategic Level Operations in 1941 (encompassing Operation Barbarossa and Operation Typhoon) : the Krivosheev figures and the actual losses.

Table 9

The Krivosheev Study Data on the Significant Soviet Strategic Level Operations in 1941

Period in 1941	Opposing Axis Army Group	Soviet (and Russian) Title	Soviet Fronts and Separate Armies	Numerical Strength at Start	Irrecov-erable Losses	Sick and Wounded	Total Losses
22nd June to 9th July	AGN	Baltic Strategic Defensive Operation	Northwestern (& Baltic Fleet)	498,000	75,202	13,284	88,486
22nd June to 9th July	AGC	Byelorussian Strategic Defensive Operation	Western	627,300	341,073	76,717	417,790
22nd June to 6th July	AGS	Lvov-Chernovitsy Strategic Defensive Operation	Southwestern and Southern	864,600	172,323	69,271	241,594
1st July to 26th July	AGS and AG Antonescu	Moldavia Defensive Operation	Southern	364,700	8,519	9,374	17,893
29th June to 10th October	Finnish, Karelain Fr.	Arctic and Karelia Strategic Defensive Operation	Leningrad and Karelian Fronts, & 7th Sep. Army*	358,390	67,265	68,448	135,713
10th July to 30th Sep.	AGN	Leningrad Strategic Defensive Operation^	Northwestern and Northern (Leningrad), (& Baltic Fleet)	517,000	214,078	130,848	344,926
10th July to 10th Sep.	AGC	Battle of Smolensk**	Western, Central, Reserve and Bryansk	581,600 (Western Front only).	486,171	273,803	759,974
7th July to 26th Sep.	AGC and AGS	Kiev Strategic Defensive Operation	Southwestern, Southern and Central	627,000 (S. W. Front Front only).	616,304	84,240	700,544
5th August to 16th October	AG Antonescu	Defence of Odessa	Sep. Maritime Army (& Black Sea Fleet)	34,500	16,578	24,690	41,268
30th September to 5th December	AGC	Moscow Strategic Defensive Operation	Western, Reserve, Bryansk and Kalinin	1,250,000	514,338	143,941	658,279
29th September to 16th November	AGS	Donbass-Rostov Strategic Defensive Operation	Southwestern and Southern	541,600	143,313	17,263	160,576

Table 9 (continued)							
16th October to 9th November	AGN	Tikhvin Defensive Operation	Leningrad Front, and 4th & 52nd Sep. Armies	135,700	22,743	17,846	40,589
18th October to 16th November	AGS and AG Antonescu	Crimean Defensive Operation	Leningrad Front, and 4th & 52nd Sep. Armies	235,600	48,438	15,422	63,860
10th November to 30th December	AGN	Tikhvin Strategic Offensive Operation	Leningrad, Volkhov Northwestern	192,950	17,924	30,977	48,901
17th November to 2nd December	AGS	Rostov Strategic Offensive Operation	Southern Front, and 56th Sep. Army	349,000	15,264	17,847	33,111
5th December to 7th January 1942	AGC and AGS	Moscow Strategic Offensive Operation	Western, Kalinin, Bryansk & Southwestern	1,021,700	139,586	231,369	370,955
25th December to 2nd January 1942	AGS and AG Antonescu	Kerch-Feodosia Amphibious Operation	Transcaucasus (redes. Caucasus Front, 30th Dec.)	82,500	32,453	9,482	41,935
				Totals	**2,931,572**	**1,234,822**	**4,166,394**
Krivosheev's overall 1941 figures, i.e., Table 2.					**3,137,673**	**1,336,147**	**4,473,820**
% of casualties in 'Krivosheev's overall 1941 figures', i.e., Table 2.					**93%**	**92%**	**93%**
Casualties unaccounted for in 'Krivosheev's overall 1941 figures', i.e., Table 2.					**206,100**	**101,300**	**307,400**
% of casualties in 'Krivosheev's overall 1941 figures', 'used up' in only 7 operations.					**75%**	**67%**	**72%**
Revised Soviet 1941 Casualty Figures', i.e., Table 15.					**4,791,300**	**1,662,100**	**6,453,400**
% of casualties in 'Revised Soviet 1941 Casualty Figures', i.e., Table 15.					**61%**	**74%**	**65%**
Casualties unaccounted for in 'Revised Soviet 1941 Casualty Figures'; i.e., Table 15.					**1,859,700**	**427,300**	**2,287,000**

* Initially the Northern Front, which was redesignated the Leningrad Front on 27th Aug. 41. The Karelian Front was formed 25th Aug. 41.

^ Included: the Tallinn Defensive Operation, defensive operations in the western and southwestern approaches to Leningrad, Soviet counter-offensive operations in the Soltsy, Staraya Russa and Kholm areas, and the Demyansk Defensive Operation.

** The 'Battle of Smolensk' includes a huge area of operations and many subsidiary offensive and counter-offensive operations. Using the Soviet/Russian historiography (to 10th Sep. 1941), it includes: the (main) Smolensk Pocket itself, the Mogilev Pocket, the Roslavl Pocket, the Gomel and Krichev Pocket, the Velikie Luki Pocket, and the numerous Soviet counter-offensive operations against Army Group Centre's front. The latter includes the El'nia Offensive Operation from 30th Aug. and 10th Sep. 1941 (which, Krivosheev states, cost the Soviets 31,852 casualties). An examination of these separate operations very quickly proves that the figures quoted for the "Battle of Smolensk" (and using the Russian historiography) are incorrect by a very wide margin. It is very apparent that they are way too low in all respects, and have been underrated (refer text).

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Example.	Strength (info supplied)	Irrec. Losses	Rec. Losses	Total Losses
The Battle of Smolensk, Krivosheev data.	**581,600**	**486,171**	**273,803**	**759,974**

Krivosheev's 'Russian historiography' used for the Battle of Smolensk is much more akin to a military campaign than a single battle.
10th July to 10th Sep. 1941: no less than 63 days involving Western, Reserve, Central and Bryansk Fronts. (Note, German 'historiography' goes to around 6th Aug. 41).

The Area Covered using Russian historiography and narrative covers a massive territory in Belarus, Russia and even the Nth Ukraine.

It includes: the area northeast and east of Velikie Luki, the whole area west of Rzhev and Vyazma, the Western Dvina - Dnieper River land bridge between Vitebsk and Orsha, the upper Dnieper River (including Mogilev) but extending well beyond the area south of Gomel and to the border with the northern Ukraine, the whole area around and to the east of Smolensk (including Yartsevo, El'nia and Roslavl), and the whole area to the west and even south of Bryansk as far as Romny (which is <u>170km south of the northern Ukraine border</u> closest to Bryansk).

The flanks of this territory (to 10th Sep.) are over 230km Nth of Smolensk, and a massive 460km kilometres south & east of Smolensk (in a straight line).

Note, from Yartsevo (behind which the 3rd Pantzer Group with 6 rested Pz and mot. divisions was still concentrated on 15th August) to Moscow is only 320km.

Actual Soviet Force Strengths at the Start and During the 'Battle"

Nearly all the pre-war **Reserves of the Stavka GK,** which had a total of around <u>619,000</u> men on 22nd June 1941. + received replacements after this date.
Included: 16th, 19th, 20th Armies. Smolensk, Nth and West Smolensk. Total strength on 22nd June was around <u>275,000</u> personnel. Part of Western Front.
The 24th Army assigned east of Smolensk with around <u>88,000</u> men on 22nd June. Part of Western Front (later part of Reserve Front).
The 22nd Army assigned northwest of Smolensk with around <u>83,000</u> men on 22nd June 1941. Part of Western Front.
The 21st Army assigned south of Mogilev with <u>106,000</u> men on 22nd June 1941. Part of Western Front (later part of Central Front).
Additional Separate Stavka Reserve forces (corps units, around <u>34,000</u> men)

Remnants of the Western Special Military District (Western Front) that had survived the Byelorussian Strategic Defensive Operation.
Comprised around <u>197,000</u> men, many of which were retreating back to the Dvina - Dnieper land bridge and the upper Dnieper River.
Note, 671,000 strength at start - 474,000 total losses = 197,000.

At least <u>100,000</u> Replacements (R) (part of the 500,000 called-up reservists killed or captured by the Wehrmacht on their way to their assigned military units).

Total strength at start was at least <u>883,000</u> (or 152% of Krivosheev's figure)

New forces included 11 new armies Mobilised and Deployed (MD) on this axis, becoming operational (at least on paper) HQs by late July and August.
Initially, the 28th, 29th & 30th Armies (Western Front). The 31st, 32nd, 33rd, 34th, 43rd & 49th (Reserve Front). The 2/3rd (Central Front). The 50th (Bryansk Front).
These forces received the large majority of newly mobilised rifle and militia rifle divisions from all regions of the USSR, the majority of Replacements (R), and most of the handful of pre-war divisions transferred west from the Central Asia Military District and Far Eastern Front.
The strength returns for Western, Reserve, Central and Bryansk Fronts, receiving all the above, between 10th July and 20th August indicates around <u>1,470,000</u> men.

In addition, at least <u>521,000</u> Replacements (R), went to Soviet units involved in the Battle of Smolensk to 10th Sep. (Ref. Soviet FILARM model, Vol. IIIB).

Therefore at least <u>1,991,000 Soviet soldiers participated in the Battle of Smolensk</u> using the Russian historiography, and (despite massive casualties, see next slide) the strength of the Western, Reserve, Central and Bryansk Fronts was still close to a million men on 10th September 1941.

Example (continued)	Strength (info supplied)	Irrec. Losses	Rec. Losses	Total Losses
The Battle of Smolensk, Krivosheev data.	**581,600**	**486,171**	**273,803**	**759,974**

Actual Soviet Casualties (including POWs) in the 'Battle'

Other military operations included when accounting for the Soviet casualty figures as presented by the Krivosheev study and using the 'Russian historiography'.
These are **over and above** **those operations already covered using the German historiography from 10th July to 6th August 1941. These include:**

1. The 2nd Panzer Group's long (350km) southward offensive from 10th Aug. to 10th Sep. 41. Against Central & Bryansk Fronts (and even elements of SW Front).
2. The 2nd Army's offensive to capture and eliminate the Soviet forces around Gomel and Krichev, resulting in 78,000 Soviet POWs by 21st August 1941.
3. The Soviet Western Front's Dukhovshchina Offensive against the German 9th Army positions northeast of Smolensk. Phase 1 from 17th to 19th August 1941, and phase 2 (the 9th Army's counterattack) from 20th to 24th August 1941.
4. The Soviet Reserve Front's first offensive on the El'nia salient (held by the German 4th Army's 20th Infantry Corps) from 8th to 21st August 1941.
5. The 9th Army's offensive (with the 3rd Pz. Grp's 57th Mot. Cps) to encircle and capture the Velikie Luki - Toropets - Andreapol' - Zapadnaia region from 21st Aug. to 9th Sep. 1941. This offensive resulted in the almost complete destruction of the Soviet 22nd Army which had around 71,600 men on 21st August 1941.
6. The Soviet Western Front's second Dukhovshchina Offensive against the German 9th Army positions northeast of Smolensk from 28th August to 10th September 41.
7. The Soviet Reserve Front's second offensive on the El'nia salient from 30th Aug. to 10th Sep. 1941. The damaged German 20th Corps withdrew from the El'nia salient. However the offensive cost the Reserve Front at least 31,853 casualties, and was possibly in the region of 77,728 casualties.
8. The Soviet Bryansk Front's Roslavl - Novozybkov Offensive from 29th August to 6th September 1941. This was essentially a (two phase) failed Soviet counterattack to stop the 2nd Panzer Group's drive south. The casualties suffered during this operation were unusually high, even by Soviet standards. The total number of casualties is estimated at over 100,000 and 140 tanks. This includes 50,972 irrecoverable losses and 28,603 sick and wounded out of the initial force of 261,696 men committed to the offensive. Over 20,000 additional casualties were suffered from the approximately 80,000 Replacements (R) received during the operation.

Army Group Centre operations: Mogilev Pocket 35,000 POWs, Smolensk Pocket 309,000 POWs, Roslavl Pocket 39,000 POWs, Gomel and Krichev 78,000 POWs, Velikie Luki 34,000 POWs, and numerous smaller battles c.a. 70,000 POWs. **Total, 10th July to 10th Sep. 1941, approximately 565,000 POWS.**

The operations carried out by Army Group Centre against Western and Reserve Fronts from 10th July to 6th August 1941 resulted in around **86,000** killed or died.
The operations 1-8. (above) against Western, Reserve, Central and Bryansk Fronts, results in a **lower estimate** of around **73,000** killed or died: 7th Aug. -10th Sep. 41.

	Strength (committed in 63 days)	Irrec. Losses	Rec. Losses	Total Losses
The Battle of Smolensk, revised data.	**883,000 start (1,991,000)**	**724,000**	**274,000**	**998,000**

Table 11. The POWs and Equipment Captured by Army Group Centre from 22nd June to 27th Sep. 1941

Army	POWs	Tanks	Artillery	AT Guns	AA Guns	Aircraft
2nd Army	280,727	528	2,110	29	35	237
4th army	29,929	1,664	753	33		
9th Army	151,361	1,845	1,515	116	26	248
2nd Panzer Army	397,297	2,707	2,089	125	39	209
3rd Panzer Army	131,183	1,230	961			166
Rear Area Troops	37,931	15	100	25		
Totals	**1,028,428**	**7,989**	**7,528**	**328**	**100**	**860**

Bialystok-Minsk Pockets plus other misc. (22nd June to 9th July 1941)	**332,000**
Battle of Smolensk (Russian historiography, 10th July to 10th Sep. 1941)	**565,000**
Chernigov, Romny and Front Defence (11th Sep. to 27th Sep. 1941)	**131,000**

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Table 10										
Comparison Figures for Selected Soviet Strategic Level Operations during 1941 (and for Kursk in 1943)										
Krivosheev Historiography and Associated Data Relating to Specific Strategic Level Operations							**Data Using the Same Historiography and More Authoritative Sources**			
Period	**Krivosheev Title (assigned to the period and region selected)**	**Fronts (including parts of Fronts)**	**Numerical Strength at Start**	**Irrecov-erable Losses**	**Sick and Wounded**	**Total Losses**	**Numerical Strength at Start**	**Irrecov-erable Losses**	**Sick and Wounded**	**Total Losses**
22nd June to 9th July	Baltic Strategic Defensive Operation (18 days)	Northwestern Front, Baltic Fleet	**498,000**	**75,202**	**13,284**	**88,486**	**370,000**	**247,000**	**13,000**	**260,000**
22nd June to 9th July	Byelorussian Strategic Defensive Operation (18 days)	Western Front, Pina (Pinsk) Flotilla	**627,300**	**341,073**	**76,717**	**417,790**	**671,000**	**397,000**	**77,000**	**474,000**
10th July to 10th Sep.	Battle of Smolensk' to 5th Aug. 41, and the Soviet Offensives East of Smolensk to 10th September (63 days)*	Western, Central, Reserve and Bryansk Fronts, and Pina Flotilla	**581,600** (Western Fr. & Pina Flt. Strength only).	**486,171**	**273,803**	**759,974**	**883,000** Ca. 565,000 were POWs. In addition, over 1,991,000 Soviet soldiers took part in the 63 days from 10th July to 10th September 1941 (refer text).	**724,000**	**274,000**	**998,000**
7th July to 26th Sep.	Kiev Strategic Defensive Operation (82 Days)^	Southwestern, Southern and Central Fronts, and Pina Flotilla	**627,000** (South Western Front only).	**616,304**	**84,240**	**700,544**	**765,000** Strength at start includes SW Front on 7th July, and around 100,000 from Southern Front that had moved north to support SW Front by 7th July. Includes 587,000 POWs (Kiev Pocket), and 103,000 POWs (Uman Pocket).	**798,000**	**172,000**	**970,000**
30th Sep. to 5th Dec.	Moscow Strategic Defensive Operation (67 days)	Western, Reserve, Bryansk and Kalinin Fronts	**1,250,000**	**514,338**	**143,941**	**658,279**	**1,310,000**** ** A total of around 2,226,000 Soviet soldiers took part in the 67 days from 30th September to 5th December 1941 (refer text). ^^ Losses in October 1941 were at least 900,400. Irrecoverable losses include over 673,000 POWs; the very large majority of which came from the Bryansk and Vyazma Pockets.	**928,000**	**155,000**	**1,083,000^^**
5th July to 23rd July 1943	Kursk Strategic Defensive Operation (19 days), (example, which is not from 1941)	Central, Voronezh, and Steppe Fronts	**1,272,700** (Central and Voronezh Fronts strength only).	**70,330**	**107,517**	**177,847**	**1,724,000** Includes strength and casualties from the Steppe Front (with 451,524 personnel), which entered combat on 20th July. Includes approximately 34,000 Soviet POWs captured up to 13th July.	**ca. 101,000**	**ca. 128,000**	**229,000**

* The 'Battle of Smolensk' lasted to 6th Aug. 1941 according to German historiography, because Army Group Centre's pre-war Smolensk and Dnieper River objectives have been achieved (refer text). In Soviet and Russian historiography, and Soviet centric books on this topic in the West, the Battle of Smolensk lasted to 10th Sep. (refer text). From mid August to 14th Sep. 1941 the Soviets conducted several large scale (and very costly) offensive operations against Army Group Centre's infantry divisions holding this sector. The latter included the El'nia offensive to clear the El'nia salient from 30th Aug. to 10th Sep. 1941. This offensive, alone, cost the Soviet 24th Army over 77,700 casualties (refer text). The casualties from all these Soviet offensives, as well as the German AGC flank clearing operations in August, should be (but are not) included in the Krivosheev loss figures if using the Russian historiography to define the 'Battle of Smolensk'.

^ In German historiography, this includes the entire period from 7th July to 25th Aug. 1941, when Army Group South conquered the entire southern and western Ukraine (advancing to the lower Dnieper River line). This period included numerous major and intense battles, and included a massive Soviet defeat around Uman (along with 103,000 Soviet POWs in the Uman Pocket). It is clear that very few (if any) of the Soviet POWs and casualties sustained in the 7th July to 25th August period (in the southern and western Ukraine) are included in the Krivosheev figures (refer text).

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Table 9 Revised							
Revised Major Operation Casualty Figures (bold), and the Krivosheev Study Data on the Significant Soviet Strategic Level Operations in 1941							
Period in 1941	**Opposing Axis Army Group**	**Soviet (and Russian) Title**	**Soviet Fronts and Separate Armies**	**Numerical Strength at Start**	**Irrecov-erable Losses**	**Sick and Wounded**	**Total Losses**
22nd June to 9th July	**AGN**	**Baltic Strategic Defensive Operation**	**Northwestern (& Baltic Fleet)**	**370,000**	**247,000**	**13,000**	**260,000**
22nd June to 9th July	**AGC**	**Byelorussian Strategic Defensive Operation**	**Western**	**671,000**	**397,000**	**77,000**	**474,000**
22nd June to 6th July	AGS	Lvov-Chernovitsy Strategic Defensive Operation	Southwestern and Southern	864,600	172,323	69,271	241,594
1st July to 26th July	AGS and AG Antonescu	Moldavia Defensive Operation	Southern	364,700	8,519	9,374	17,893
29th June to 10th October	Finnish, Karelain Fr.	Arctic and Karelia Strategic Defensive Operation	Leningrad and Karelian Fronts, & 7th Sep. Army*	358,390	67,265	68,448	135,713
10th July to 30th Sep.	AGN	Leningrad Strategic Defensive Operation^	Northwestern and Northern (Leningrad), (& Baltic Fleet)	517,000	214,078	130,848	344,926
10th July to 10th Sep.	**AGC**	**Battle of Smolensk**	**Western, Central, Reserve and Bryansk**	**883,000**	**724,000**	**274,000**	**998,000**
7th July to 26th Sep.	**AGC and AGS**	**Kiev Strategic Defensive Operation**	**Southwestern, Southern and Central**	**765,000**	**798,000**	**172,000**	**970,000**
5th August to 16th October	AG Antonescu	Defence of Odessa	Sep. Maritime Army (& Black Sea Fleet)	34,500	16,578	24,690	41,268

Table 9 Revised, (Continued)

30th September to 5th December	**AGC**	**Moscow Strategic Defensive Operation**	**Western, Reserve, Bryansk and Kalinin**	**1,310,000**	**928,000**	**155,000**	**1,083,000**
29th September to 16th November	AGS	Donbass-Rostov Strategic Defensive Operation	Southwestern and Southern	541,600	143,313	17,263	160,576
16th October to 9th November	AGN	Tikhvin Defensive Operation	Leningrad Front, and 4th & 52nd Sep. Armies	135,700	22,743	17,846	40,589
18th October to 16th November	AGS and AG Antonescu	Crimean Defensive Operation	Leningrad Front, and 4th & 52nd Sep. Armies	235,600	48,438	15,422	63,860
10th November to 30th December	AGN	Tikhvin Strategic Offensive Operation	Leningrad, Volkhov Northwestern	192,950	17,924	30,977	48,901
17th November to 2nd December	AGS	Rostov Strategic Offensive Operation	Southern Front, and 56th Sep. Army	349,000	15,264	17,847	33,111
5th December to 7th January 1942	AGC and AGS	Moscow Strategic Offensive Operation	Western, Kalinin, Bryansk & Southwestern	1,021,700	139,586	231,369	370,955
25th December to 2nd January 1942	AGS and AG Antonescu	Kerch-Feodosia Amphibious Operation	Transcaucasus (redes. Caucasus Front, 30th Dec.)	82,500	32,453	9,482	41,935
				Totals	**3,992,484**	**1,333,837**	**5,326,321**
Krivosheev's overall 1941 figures, i.e., Table 2.					**3,137,673**	**1,336,147**	**4,473,820**
% of casualties in 'Krivosheev's overall 1941 figures', i.e., Table 2.					**127%**	**100%**	**119%**
Casualties unaccounted for in 'Krivosheev's overall 1941 figures', i.e., Table 2.					**(-854,800)**	**2,300**	**(-852,500)**
% of casualties in 'Revised Soviet 1941 Casualty Figures', 'used up' in only 7 operations.					**71%**	**60%**	**68%**
Revised Soviet 1941 Casualty Figures', i.e., Table 15.					**4,791,300**	**1,662,100**	**6,453,400**
% of casualties in 'Revised Soviet 1941 Casualty Figures', i.e., Table 15.					**83%**	**80%**	**83%**
Casualties unaccounted for in 'Revised Soviet 1941 Casualty Figures'; i.e., Table 15.					**798,800**	**328,300**	**1,127,100**

* Initially the Northern Front, which was redesignated the Leningrad Front on 27th Aug. 41. The Karelian Front was formed 25th Aug. 41.

^ Included: the Tallinn Defensive Operation, defensive operations in the western and southwestern approaches to Leningrad, Soviet counter-offensive operations in the Soltsy, Staraya Russa and Kholm areas, and the Demyansk Defensive Operation.

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Soviet Casualties and Losses During Operation Barbarossa, and from 1942 to 1945

Part II

Soviet Casualties and Losses During Operation Barbarossa, and from 1942 to 1945

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6. Soviet weapon and equipment losses during WWII, and possible correlation with personnel losses from 1941 to 1945

Table 12

Krivosheev Data on Soviet Weapons and Equipment Losses in the Great Patriotic War, 1941 - 1945.							Estimate of Irrecoverable Personnel Losses Based only on Weapon and Equipment Losses; 1941 and 1941-45			
Year	1941	1942	1943	1944	1945	Total	Multiplier Factor for 1941	Personnel 1941	Ave. Multiplier Factor for 1941 to 45	Personnel 1941-45
Small Arms and MGs										
Revolver and Pistols	440,000	390,000	80,000	150,000	60,000	1,120,000	0.2	88,000	0.3	336,000
Rifles and Carbines	5,550,000	2,180,000	1,260,000	1,610,000	670,000	11,270,000	0.8	4,440,000	0.9	10,143,000
SMGs	100,000	550,000	530,000	840,000	260,000	2,280,000	0.6	60,000	0.7	1,596,000
LMGs	134,700	76,700	82,800	106,100	27,200	427,500	1.2	161,640	1.3	555,750
MMGs	54,700	24,500	21,000	38,200	12,900	151,300	1.5	82,050	1.6	242,080
HMGs	1,400	4,900	900	1,900	900	10,000	2.0	2,800	2.1	21,000
Anti-Tank Rifles	8,800	86,900	46,600	56,500	15,200	214,000	0.9	7,920	1.0	214,000
AT Guns										
45mm AT guns	12,000	11,300	5,200	8,200	3,500	40,200	2.0	24,000	2.1	84,420
57mm AT guns	100	200	300	1,100	500	2,200	3.0	300	3.1	6,820
Totals	12,100	11,500	5,500	9,300	4,000	42,400				
AA guns										
25mm AA guns	100		100	300	100	600	2.0	200	2.2	1,320
37-40mm AA guns	1,200	600	400	500	400	3,100	3.0	3,600	3.2	9,920
76-85mm AA guns	2,800	900	300	200	100	4,300	4.0	11,200	4.2	18,060
Totals	4,100	1,500	800	1,000	600	8,000				
Artillery										
76mm guns (all types)	12,300	10,100	5,000	10,800	5,800	44,000	2.0	24,600	2.4	105,600
100-107mm guns	400	100			100	600	3.0	1,200	3.4	2,040
122mm howitzers	6,000	1,500	600	1,200	700	10,000	4.0	24,000	4.4	44,000
122mm guns	900			100		1,000	3.0	2,700	3.4	3,400
152mm howitzers	2,600	200		100	100	3,000	5.0	13,000	5.4	16,200
152mm gun/howitzers	2,100	400	100	100	100	2,800	5.0	10,500	5.4	15,120
203mm and above	100					100	6.0	600	6.4	640
Totals	24,400	12,300	5,700	12,300	6,800	61,500				

Table 12 (continued)										
Year	**1941**	**1942**	**1943**	**1944**	**1945**	**Total**	**Factor, 41**	**Personnel 41**	**Ave. 41-45**	**Personnel 41-45**
Mortars										
50mm mortars	38,000	37,300	13,300	8,500	2,400	99,500	0.6	22,800	0.8	79,600
82mm mortars	18,500	34,800	10,300	14,600	3,700	81,900	2.0	37,000	2.2	180,180
107-120mm mortars	4,000	10,100	3,100	5,800	900	23,900	3.0	12,000	3.2	76,480
Totals	60,500	82,200	26,700	28,900	7,000	205,300				
Rocket Artillery										
BM-8 rocket launchers		300	500	500	100	1,400	2.0	0	3.0	4,200
BM-13 rocket launchers		400	1,600	1,000	400	3,400	3.0	0	4.0	13,600
BM-31-12 rocket launchers					100	100	5.0	0	6.0	600
Totals	0	700	2,100	1,500	600	4,900				
Tanks										
Heavy Tanks (e.g. KVs, ISs)	900	1,200	1,300	900	900	5,200	2.0	1,800	3.0	15,600
Medium Tanks (e.g. T-34s)	2,300	6,600	14,700	13,800	7,500	44,900	2.0	4,600	3.0	134,700
Light Tanks (e.g. T-26s, BTs)	17,300	7,200	6,400	2,200	300	33,400	2.0	34,600	3.0	100,200
Totals	20,500	15,000	22,400	16,900	8,700	83,500				
Tracked SP AFVs										
Heavy (e.g. SU-152, ISU-152)		30	500	900	900	2,330	2.0	0	3.0	6,990
Medium (e.g. SU-85, SU-100)			100	1,000	1,000	2,100	2.0	0	3.0	6,300
Light (e.g. SU-76)		30	500	4,900	3,100	8,530	2.0	0	3.0	25,590
Totals	0	60	1,100	6,800	5,000	12,960				
Wheeled & Other Types of AFVs										
All Types	3,000	9,000	12,500	12,500	600	37,600	2.0	6,000	3.0	112,800
Motor Vehicles										
All types (large majority w.truck	159,000	66,200	67,000	32,600	27,000	351,800	0.8	127,200	1.0	351,800
Aircraft										
Bombers (e.g. SB, DB, Pe types)	7,200	2,500	3,600	3,200	1,400	17,900	2.0	14,400	2.0	35,800
Ground Attack (e.g. IL-2. Su-2)	1,100	2,600	7,200	8,900	3,800	23,600	1.0	1,100	1.0	23,600
Fighters (e.g. I, MiG, Yak types)	9,600	7,000	11,700	12,700	5,800	46,800	0.7	6,720	0.7	32,760
Other types (e.g. recon., transpo	3,300	2,600	4,200	5,700	2,300	18,100	1.0	3,300	1.0	18,100
Totals	21,200	14,700	26,700	30,500	13,300	106,400				
Naval Vessels										
Surface ships (larger ships)	121	46	22	21	2	212	60.0	7,260	60.0	12,720
Military cutters (small vessels)	168	159	210	141	22	700	10.0	1,680	10.0	7,000
Submarines	36	37	19	9	1	102	40.0	1,440	40.0	4,080
							Ca. Total	5,240,000	Ca. Total	14,658,000

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7. The Soviet armed forces irrecoverable losses based on the Central Archive of the Ministry of Defence of the Russian Federation (*Tsentral'nyy arkhiv Ministerstva oborony Rossiyskoy Federatsii*, or TsAMO RF) individual files

The Department for the Individual Registration of Irrecoverable Losses Among Soviet Army Sergeants and Soldiers.
S. A. Il'enkov, Journal of Slavic Military Studies, Volume 9, No 2, Frank Cass, London, 1996, Concerning the Registration of Soviet Armed Forces' Wartime Irrecoverable Losses, 1941-1945.

The origins of the department go back to **29th July 1941**. Responsible for conducting an inventory of individual losses, and, simultaneously, it was a bureau of the Main Directorate for the Formation and Manning of the Red Army (*Glavnoe upravleniia formirovaniia i ukomplektovaniia Krasnoi Armii*, or GUFUKA).

February 1942 – the became GUFUKA's Central Bureau For the Individual Registration of Personnel Losses within the Field Armies.
April 1943 the bureau became the Directorate for the Individual Registration of Field Army Personnel Losses, with 8 departments.

Recorded: Killed, MIA, died according to reports from military units, and also military commissariats (local military administrative agency), died in captivity and died from illness.
Records also kept on: deserters, servicemen sentenced to imprisonment or execution, those determined to be collaborators, former POWs who survived captivity, and those personnel formerly classified as irrecoverable and who were later found to be still alive.
Remarkably, none of the Red Army soldiers or other servicemen that fell into one of these categories was initially 'counted' in the lists of irrecoverable losses.

After WWII ended, the records were kept in the TsAMO RF. During **1946-47** local military commissariats went door to door and gathered information on those individuals that had not returned from the war. This information was later partially collated (where possible) with existing records. Additional information was obtained post-war from the Wehrmacht's Information Service (the *Wehrmachtsauskunftstelle*, or WASt).
Now called *the Deutsche Dienststelle* (WASt) based in Berlin.

By 1990, a total of 17,200,000 individual files had been set up and recorded, each of which detailed the fate of an individual person.

October 1990. - Army General I. A. Gerasimov, published the following information on the basis of the card-index files at the TsAMO RF.
From 1941 through 1945, 16,200,000 Soviet soldiers and sergeants, and 1,200,000 officers were irrecoverably lost.
Of these, 3-4,000,000 were MIA and 5,750,000 became POWs.

Krivosheev justified the official version with the argument that many of the 17.2 million individual files contained duplicate entries of the same individual. He argued that the chief of the TsAMO had advised his team that these files still needed more processing in order to remove the duplicate information.

During the 1990s, more processing and even new additions to the existing TsAMO RF files continued.
The formation of the electronic Central Data Bank (TsBD) under the All-Russian Scientific and Research Institute of Records Management and Archives (the VNIIDAD). Additional information came from the Military Medical Archive (Museum) and the Naval Forces Archive.
By 1995 the newly created 'Fate' Scientific Information Centre contained almost 20 million files, each of which detailed the fate of an individual serviceman who had died or was MIA.

November 2000 it was established that at least 12,434,398 Red Army lower rank soldiers and NCOs had been killed or had died during the Great Patriotic War. In addition possibly as many as 1,100,000 Red Army officers had also become demographic irrecoverable losses (i.e., killed, died or never returned to the USSR).
The ongoing processing had confirmed the demographic loss and removed double counting due to duplicate information, but still excluded the additional casualties from the Navy and NKVD.

In March 2008, according to unofficial information, it was established that:
-- At least 13,271,300 Red Army lower rank soldiers and NCOs were killed or had died during the Great Patriotic War.
-- Around 970,000 officers were established as having been killed or permanently MIA. (Excluded around 123,000 lower rank soldiers and NCOs who had not attained officer rank but had still occupied officer positions at some point in the war).
-- Around 153,700 seamen (all ranks), and at least 159,100 NKVD troops were killed or permanently MIA.

A shown in Table 13 (the next slide). Overall, the TsAMO RF records (as of 2008) indicate that the Soviet armed forces actually suffered over 1.5 times as many military-operational irrecoverable losses, and almost 1.7 times as many demographic irrecoverable losses as published in the Russian official (i.e., Krivosheev) history.

The main source of difference (as might be expected) is the numbers of permanent MIAs and POWs.
-- Firstly, the Krivosheev study completely understates the number of POWs (As already seen, this was especially the case for 1941).
-- Secondly, Krivosheev has 'compounded the mislead' by including the 2,777,700 remobilised servicemen and POWs that returned to the USSR after the war within the original 4,559,000 MIAs and POWs.
Amongst other things, this means only around 978,000 Soviet POWS were killed or died in captivity (as shown in table Sov POWs (1)), which is far below the actual number of at least 2,841,600 (as shown in table 8).

Remarkably the TsAMO RF story is still ongoing. The figure of 14,554,100 military-operational irrecoverable losses remains conservative. According to data supplied by I.I. Ivlev (in 2011), by 2010 all the letters of the alphabet in the alphabetically organised TsAMO card-index files had been processed (including for duplicate entries). As a result, around 15.3 million lower rank soldiers and NCOs have now been classified as demographic irrecoverable losses. This is over 2 million more than the 13,271,300 shown in Table 13 (the next slide). Unfortunately the results of this research have not been made public (as far as I am aware), and we can only hope!

Table 13

Actual Soviet Armed Forces Irrecoverable Losses During WWII, Based on the TsAMO RF Individual Files (as of March 2008)

Casualties based on individual person TsAMO RF files.		Krivosheev data from corresponding 'best match' category.		Difference.
Lower rank soldiers and NCOs killed.	4,173,700	5,226,800	Killed in action, died of wounds during evacuation.	
Lower rank soldiers and NCOs that died of wounds & illness.	1,383,000	1,102,800	Died in hospital of wounds.	
Lower rank soldiers and NCOs sentenced to be executed.	62,700	555,500	Non-combat related deaths.*	
Total	**5,619,400**	**6,885,100**		
Lower rank soldiers and NCOs permanently MIA.^	7,156,300	3,396,400	Missing in action (MIAs) and POWs	
Lower rank soldiers & NCOs known to have died in captivity.	495,600	1,162,600	Unrecorded casualties from the first months of war.	
Total	**7,651,900**	**4,559,000**		**3,110,000**
Officer irrecoverable losses (permanent)	970,000			
Seamen irrecoverable losses (permanent)	153,700		**Included in Krivosheev figures for POWs, MIAs,**	
NKVD border and other internal security troops (perm.).^^	159,100		**and so called 'unrecorded casualties'.**	
Total	**1,282,800**			
Former MIA serviceman who were remobilised & survived.*^	839,100	939,700	Former serviceman who were remobilised.	
POWs who returned from captivity after the war.	1,836,000	1,836,000	POWs who returned from captivity after the war.	
Total	**2,675,100**	**2,775,700**		**-100,600**
Total military-operational irrecoverable losses.	**17,229,200**	**11,444,100**	**Total military-operational irrecoverable losses, as supplied by Krivosheev, refer <u>Table 1</u>.****	**5,785,100**
Total demographic irrecoverable losses.	**14,554,100**	**8,668,400**	**Total demographic irrecoverable losses, as supplied by Krivosheev, refer <u>Table 1</u>.**	**5,885,700**

* Includes servicemen who: died of disease, died as a result of accident or were sentenced to be executed.

^ Includes POWs. Note, only 1,836,000 POWs returned to the USSR post-war. The rest were demographic irrecoverable losses to the USSR (refer Table 1).

^^ Includes approximately 61,400 NKVD border and combat unit troops, and 97,700 NKVD interior troops (of which many units also went into combat).

*^ Former servicemen who were remobilised on liberated territory and who survived the war. Around 100,600 of these were killed or died during the war.

** Krivosheev leaves out the ca. 500,000 reservists captured by the enemy after being conscripted but before being taken on strength. Should be at least 11,944,100.

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8. Revised estimate of the Soviet armed forces losses by year from 1941 to 1945

Table 15

Revised Estimate of the Soviet Armed Forces Losses in the Great Patriotic War, 1941 - 1945.*

Period	Killed, Died and MIA^		POWs*^		Total, Irrecoverable Losses **		Wounded		Sickness, Disease, Accidents, Frostbite ^^		Total, Recoverable Losses		Total Losses
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.
1941	1,313,100	20.3%	3,478,200	53.9%	4,791,300	74.2%	1,256,400	19.5%	405,700	6.3%	1,662,100	25.8%	6,453,400
1942	2,273,500	24.4%	1,668,600	17.9%	3,942,100	42.4%	3,475,700	37.4%	1,881,300	20.2%	5,357,000	57.6%	9,299,100
1943	2,321,100	24.1%	603,900	6.3%	2,925,000	30.3%	4,613,800	47.8%	2,109,000	21.9%	6,722,800	69.7%	9,647,800
1944	1,883,500	22.7%	130,100	1.6%	2,013,600	24.2%	3,976,200	47.9%	2,314,500	27.9%	6,290,700	75.8%	8,304,300
1945	862,600	25.2%	38,000	1.1%	900,600	26.3%	1,863,900	54.4%	663,500	19.4%	2,527,400	73.7%	3,428,000
Total	8,653,800	23.3%	5,918,800	15.9%	14,572,600	39.2%	15,186,000	40.9%	7,374,000	19.9%	22,560,000	60.8%	37,132,600

* All figures are rounded to the nearest 100, and excludes losses from the campaign in the Far East form 9th August to 2nd September 1945.

^ KIA, MIA (and not POW), died during casualty evacuation, died in hospital of wounds, died of disease, died as a result of accidents, etc. (including non-combat losses). Approximately 6,873,100 were killed or died, and 1,780,700 were MIA.

** Excludes 119,400 irrecoverable losses from the Soviet Allied forces. These comprised 2,900 in 1943, 55,100 in 1944 and 61,400 in 1945.

*^ The total number of Soviet POWs to 31st January 1945 was 5,880,800, which included 146,300 captured by German Allied forces. The column includes an additional estimated 38,000 Soviet POWs captured from 1st February to 8th May 1945.

^^ Losses not directly attributable to enemy action.

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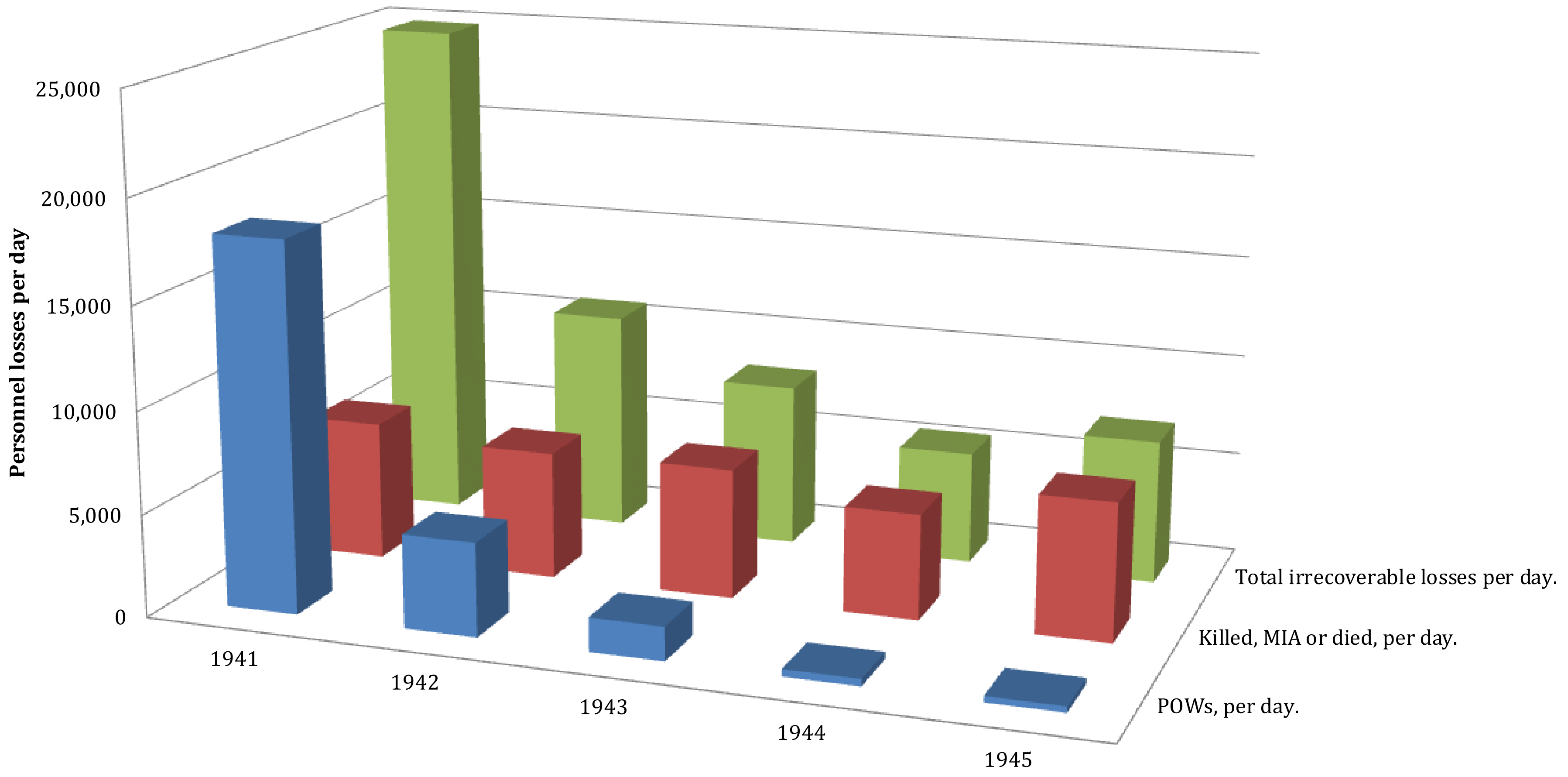
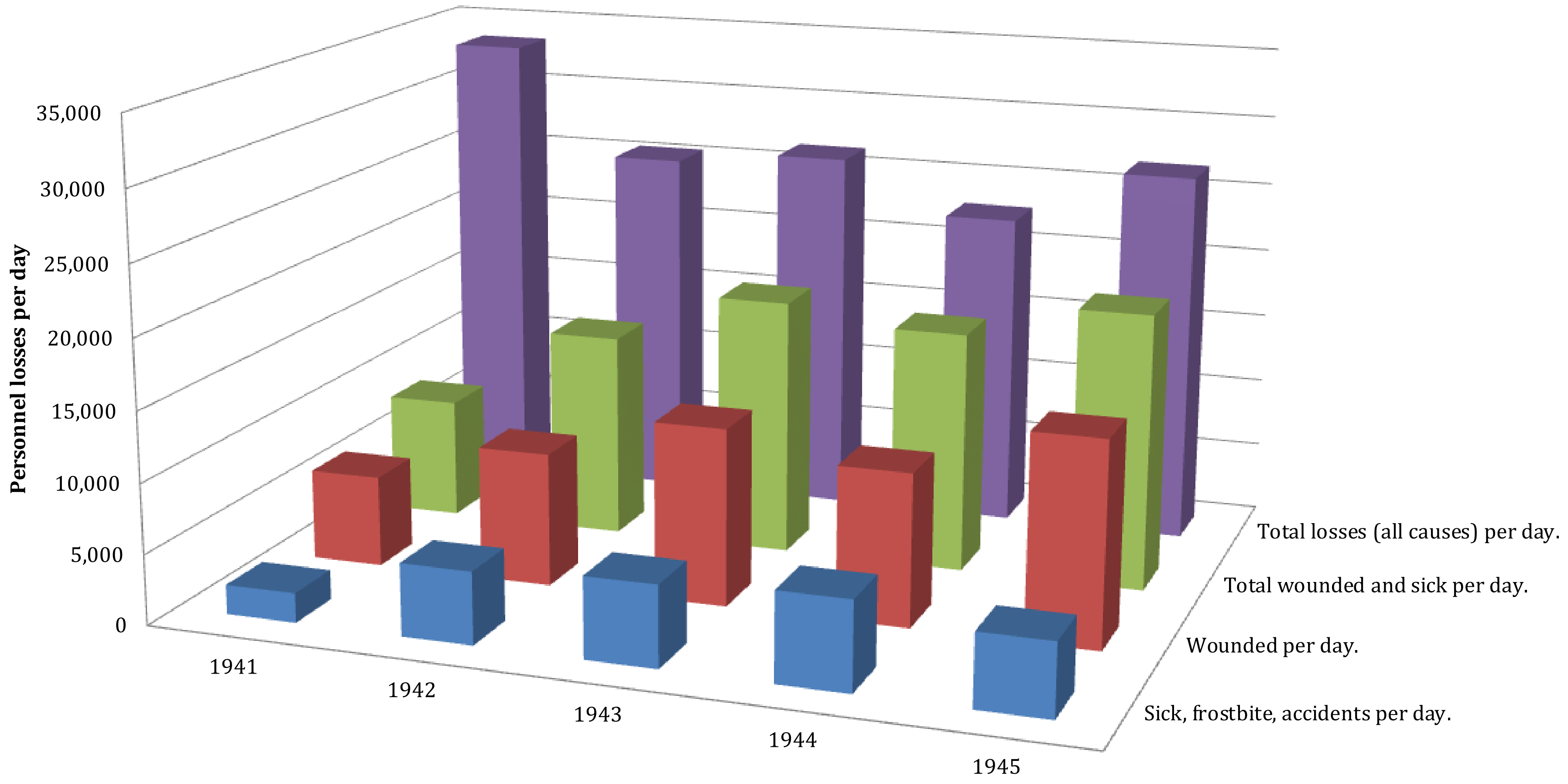
Soviet Irrecoverable Losses per Day; 22nd June 1941 to 8th May 1945



	1941	1942	1943	1944	1945
POWs, per day.	18,022	4,572	1,655	356	297
Killed, MIA or died, per day.	6,804	6,229	6,359	5,160	6,739
Total irrecoverable losses per day.	24,825	10,800	8,014	5,517	7,036

Soviet Wounded and Sick Losses, and Total Losses, per Day; 22nd June 1941 to 8th May 1945



	1941	1942	1943	1944	1945
Sick, frostbite, accidents per day.	2,102	5,154	5,778	6,341	5,184
Wounded per day.	6,510	9,522	12,641	10,894	14,562
Total wounded and sick per day.	8,612	14,677	18,419	17,235	19,745
Total losses (all causes) per day.	33,437	25,477	26,432	22,752	26,781

9. The overall Soviet demographic (including military and civilian) losses during WWII

Table 16. Soviet Civilian and Demographic Losses during WWII

Calculation of the Loss of Life in the USSR from 22nd June 1941 to 31st December 1945	
The total population of the USSR on 22nd June 1941.	196,700,000
The total population of the USSR on 31st December 1945.	170,500,000
The population in the USSR on 31st Dec.1945, of those born before 22nd June 1941.	159,500,000
The decline in population (during the war) of those born before the war.	**37,200,000**
The war related deaths of those born during the war.	1,300,000
The population that would have died in peacetime.	11,900,000
Total human losses in the USSR as a direct result of the war, (i.e., 37.2M+1.3M-11.9M).	**26,600,000**

The Soviet Civilian Population Killed in the Occupied Territories.

Country/Region	**Total No.**	**Children**
Russia	1,800,000	15,000 (+)
Ukraine	3,256,000	75,000 (+)
Belorussia	1,547,000	78,600
Lithuania	370,000	10,000 (+)
Latvia	313,798	34,831
Estonia	61,307	n/a
Moldavia	64,246	3,000 (+)
Karelia	8,028	n/a
Total	**7,420,379**	**216,431 (+)**

Soviet Civilian Population Sent to Work in the Reich as Forced Labour

Country/Region	**Total No.**
Russia	1,906,661
Ukraine	2,402,234
Belorussia	399,374
Lithuania	160,019
Latvia	279,615
Estonia	74,226
Moldavia	47,242
Karelia	142
Total	**5,269,513**

Forced labour that died in the Reich during the war.	**2,164,313**
Forced labour that returned to the USSR after the war.	**2,654,100**
Forced labour that emigrated and never returned to the USSR.	**451,100**

Estimate of Soviet civilians that died from the repressive conditions imposed by the Axis forces in the occupied territories during the war.* **4,100,000**

* Includes approximately 1,042,000 during the evacuation and siege of Leningrad.

Estimate of Soviet civilians that were killed, and those that died as a result of forced labour or repression in the occupied territories. 13,685,000

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Table 17

Comparison of Military Personnel Deaths Derived from the Demographic Study, and the Military's Demographic Irrecoverable Losses Derived from Different Sources.

Total deaths in the Soviet population as a direct result of the war.	26,600,000	
Total civilian deaths as a direct result of the war.	13,685,000	
Total military personnel deaths as a direct result of the war.	**12,915,000**	
Military personnel deaths as a direct result of the war using the unmodified Krivosheev data (**Table 1**).*	8,668,400	
Difference to the 12,915,000 military personnel deaths figure.	**4,246,600**	**fewer**
Modified difference to the 12,915,000 military personnel deaths figure.*	**3,746,600**	**fewer**
* At least the ca. 500,000 mobilised reservists captured after being conscripted, but before being taken on unit strength, should be added.		
Military personnel deaths as a direct result of the war using the TsAMO RF individual files data (**Table 13**).	14,554,100	
Difference to the 12,915,000 military personnel deaths figure.	**1,639,100**	**more**
Military personnel deaths as a direct result of the war using the revised estimate of the Soviet armed forces losses data (**Table 15**).^	11,897,500	
Difference to the 12,915,000 military personnel deaths figure.	**1,017,500**	**fewer**
^ After subtracting the 839,100 former MIA servicemen who were remobilised, and the 1,836,000 POWs who were returned from captivity after the war (refer **Table 13** from the TsAMO RF files). Note, these were not 'military demographic irrecoverable losses', but were still 'military-operational irrecoverable losses'.		

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10. A few comments and some conclusions regarding the Soviet mobilisation and war philosophy.

Table 18

Comparison of Soviet and German Military-Operational Irrecoverable Losses and Wounded Casualties, 1941 to 1945*

Year	Soviet killed, died MIA, POWs, & Wounded^	Soviet Losses against German Forces only**	Soviet/ German Loss Ratio	German Losses against Soviet Forces only*^	German killed, died, MIA, POWs, & Wounded~
1941	6,048,000	5,926,000	**6.7**	882,000	882,000
1942	7,418,000	7,188,000	**6.3**	1,150,000	1,150,000
1943	7,539,000	7,448,000	**4.3**	1,748,000	1,752,000
1944	5,990,000	5,711,000	**2.6**	2,175,000	2,258,000
1945**	2,765,000	2,562,000	**1.4**	1,784,000	1,876,000
Totals	**29,760,000**	**28,835,000**	**3.7**	**7,739,000**	**7,918,000**

*Excludes personnel made unfit due to sickness, disease, accidents and frostbite.

^ From Table 15; rounded to the nearest 1,000. Includes losses in the RKKA (the Red Army), NKVD, VVS (the Air Force) and PVO (the Strat. Air Defence Forces).

** Adjusted to take account of Soviet losses each year fighting against Finnish, Rumanian, Hungarian, Slovakian and Italian forces on the East Front.

~ Includes losses in the Heer (Army), Waffen SS, Luftwaffe (air and ground forces) and Kriegsmarine on the East Front.
In total, they include approximately 406,000 Waffen SS, 414,000 Luftwaffe (air and ground forces) and 37,000 Kriegsmarine personnel losses on the East Front.
These account for around 75% of all the Wehrmacht and Waffen SS killed, died, MIAs, POWs and wounded during WWII.

*^ Adjusted to take account of German losses in 1944 and 1945 against forces that switched sides but were not incorporated directly into the RKKA.

** German figures for 1945 are approximate only. They include at least 680,000 POWs; most captured in the last month of the war.

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German casualties for 1941 are from Volume IIB 8. - 'Wehrmacht and Waffen SS Casualties from June 1941 to February 1942', table Total Casualties East Front 1941.
German Heer casualties for 1942, 1943 and 1944 are from the Bundesarchiv (BA, the German Federal Archives); ref. BA-MA RW 6/v.553, BA-MA RH 2/1343 and Der Heeresarzt im Oberkommando des Heeres, GenStdH/Gen Qu, Az 1335 c/d (IIb). German Waffen SS, Luftwaffe and Kriegsmarine casualties, and all casualties for 1945, are estimated based on the above (for wounded) and R. Overmans, Deutsche militärische Verluste im Zweiten Weltkrieg (German Military Losses in the Second World War), R. Oldenbourg Verlag München, 2004, p. 239, Tab. 38, p. 258, Tab 48 and pp. 276-292, Tab. 59-69.

Table 19

Comparison of Soviet and German Average Yearly Strengths 'at the front' on the East Front from 1941 to 1945

Year	Average Soviet Available in the USSR*	Average Soviet Forces at the Front	Ave. Soviet Forces facing German Forces only^	Average Soviet/ German Force Ratio	Ave. German Forces facing Soviet Forces only**	Average German Forces at the Front	Soviet/ German Loss Ratio
1941	6,891,290	3,292,500	2,929,307	**0.97**	3,033,728	3,033,728	**6.7**
1942	9,380,464	5,554,514	4,606,520	**1.76**	2,611,429	2,611,429	**6.3**
1943	9,997,523	6,424,000	5,847,046	**2.05**	2,845,400	2,845,400	**4.3**
1944	10,771,831	6,607,373	6,113,088	**3.29**	1,858,824	2,149,023	**2.6**
1945**	10,464,583	6,298,037	6,198,037	**3.99**	1,551,599	1,925,000	**1.4**

* Total forces mobilised, including reserve forces in the rear areas (military districts), and including personnel in military hospitals

^ Adjusted to take account of average Soviet forces (each year) facing Finnish, Rumanian, Hungarian, Slovakian and Italian forces on the East Front.

** Adjusted to take account of average German forces in 1944 & 1945 facing Polish, Romanian, Czech, Bulgarian, Yugoslavian and Albanian forces on the East Front.

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The Soviet strengths on 22nd June 1941 are from Volume IIIB 1. - 'The Actual Strength of all Soviet Land Combat Units in a Deployed (D) State on 22nd June 1941', table Sov. Total.

The Stavka Reserves (with approximately 619,000 personnel on 22nd June 1941) are included for forces (at the front) for June 1941.

The remaining data is compiled from: When Titans Clashed, Glantz. D., House. J., University Press of Kansas, 2015, pp. 383-389, Table N.

Table 20. US and Commonwealth Military Casualties in WWII^				
	Deaths*	**Wounded**	**POWs**	**Total**
USA	407,300	671,800	139,700	**1,218,800**
UK	383,700	376,200	172,600	**932,500**
Australia	39,600	39,800	26,400	**105,800**
Canada	42,000	53,200	9,000	**104,200**
India	87,000	64,400	79,500	**230,900**
New Zealand	11,700	19,300	8,500	**39,500**
South Africa	11,900	14,400	14,600	**40,900**
Total	**983,200**	**1,239,100**	**450,300**	**2,672,600**

* Includes deaths from all causes.

^ Excludes personnel made unfit due to sickness, disease, accidents and frostbite.

Compiled from: J. Ellis, WWII: A Statistical Survey, Facts On File Inc, New York, 1993, pp. 253-254, Table 51, M. Clodfelter, Warfare and Armed Conflicts: A Statistical Reference to Casualty and Other Figures 1500-2000 (2nd Edition), McFarland & Company Inc. Publishing, 2002, p. 58, the Commonwealth War Graves Commission, the American Battle Monuments Commission, the Australian War Memorial, the Canadian War Museum and the Auckland War Museum.

We will finish where we started, with more official Russian data (pub. 2001), just for perspective!				
	Strength at Start	**Total Casualties**	**Deaths**	**% Casualties**
The Byelorussian Strategic Offensive Operation, 23rd June - 29th August 1944. (Operation Bagration).	**2,411,600**	**770,888** (11,337/day)	**180,040**	**32%**
The Budapest Strategic Offensive Operation, 29th October 1944 - 13th February 1945.	**719,500**	**320,082** (2,964/day)	**80,026**	**44%**
The East Prussian Strategic Offensive Operation, 13th January - 25th April 1945.	**1,669,100**	**584,778** (5,677/day)	**126,464**	**35%**
The Berlin Strategic Offensive Operation, 16th April - 8th May 1945.	**2,062,100**	**361,367** (15,712/day)	**81,116**	**18%**
Totals*	**6,862,300**	**2,037,115**	**467,646**	**30%**

The End (at last I hear!)

Thanks for watching and wading through all these stats!